A CHRONOLOGY

OF

MEDICINE

Ancient, Mediæval, and Modern

Being a Historical, an Antiquarian, & a Curious Survey of the Birth & Growth of Medicine from the Earliest Times to the Present Day

EDITED BY

JOHN MORGAN RICHARDS

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TO

THE HON. DEMAS BARNES,

OF NEW YORK,

MY FIRST EMPLOYER IN THE BUSINESS WITH WHICH
HIS NAME HAS SO LONG AND SO HONOURABLY BEEN IDENTIFIED
IN THE UNITED STATES,
TO WHOSE TEACHING AND EXAMPLE AS A MERCHANT
I HAVE EVER REGARDED MYSELF AS MAINLY INDEBTED FOR THE
HAPPY SUCCESSES OF MY LIFE, I GRATEFULLY INSCRIBE

This Volume

IN GLAD REMEMBRANCE OF HIS TIMELY COUNSEL
AND UNWEARIED KINDNESS
"WHEN DAYS WERE DARK AND FRIENDS WERE FEW."

812297

PREFACE.

IN preparing this work for publication I was animated by a desire to place before the general public such a work on the rise and progress of medicine, in all its departments, as should be popularly readable. Avoiding all technicalities, I have sought to show how the healing art first grew up, and how through the centuries it has advanced, with slow but certain steps, until, in spite of opposition engendered by ignorance, and fostered by superstition, medicine has triumphed over all difficulties, freed herself from all trammels, and won for herself the first position amongst the sciences.

With one thing I have been deeply impressed, and that is the singular fact that two of the most important branches of modern medical science originated in the earliest historical ages; and that two of the most debased developments of ignorance and superstition survive at the present day. In the first instance I refer to the clinical lectures given by the medical priests of Egypt, and the physicians of Greece; and to the existence of an official Pharmacopœia in Egypt and in Italy. Clinical instruction was not given in England until the seventeenth century; and the earliest English edition of the Pharmacopœia was published in 1618. In the same way a belief in the efficacy of amulets, charms, and talismans, which was held in Egypt, and in Saxon England, still lingers amongst the rogues of London, and a month ago a thief was taken up who had in his pocket a piece of coal which he carried from a belief that it would save him from arrest. The belief in witches, also, which grew up in the Middle Ages,

still prevails in many districts of England; and last week a poor old woman in Cornwall was carried to her grave by men in their shirt sleeves, because she was supposed to have bewitched several people.

In dealing with modern medicine my attention has been chiefly but not exclusively directed to the share borne by Englishmen in the progress of science. I have consulted all leading works upon the subject, which are contained on the well filled shelves of the British Museum and other libraries, but I do not think it necessary to recite their titles now, particularly as in every case where I have taken an extract I have acknowledged my authority.

The work is so arranged as to admit of further extension with regard to existing medicines which are acknowledged by the profession to be of good repute. A close search of the Calendars of the State Papers has yielded much interesting matter and a fuller life of

Linacre than has ever before appeared; and I am indebted to Mr. W. D. Selby, Superintendent of the Search Room, for a few remarkable recipes. The beautiful portrait outlines have been taken (by permission) almost exclusively from the collections preserved in the Library of the Royal College of Surgeons. In the investigations necessary for the work, and in the general collection of matter, I am largely indebted for assistance to Mr. John B. Marsh, of London, without whose help I could not have produced this book.

JOHN MORGAN RICHARDS.

GREAT RUSSELL STREET,
London, 1880.

A CHRONOLOGY OF MEDICINE.

INTRODUCTION.

SLOW GROWTH OF MEDICINE AS A SCIENCE—HIPPOCRATES—PHILOSOPHICAL SCHOOLS—VAIN PURSUITS—FALSE AIDS.

IN an historical survey of medicine it is impossible to avoid a feeling of surprise that the science of healing should have made very slow progress in ancient and in mediæval times. Architecture, at a very early period of the world's history, attained unparalleled splendour; and sculpture produced never-to-be-equalled examples in the works of Phidias 460 years before the Christian era. Yet neither the architect of the Temple at Karnak, nor the sculptor of Zeus, knew by what mechanism they

opened their eyes or raised their arms. When, 650 years later, Solon uttered the maxim, "Know thyself," he indicated the only great problem which had baffled study, and was beyond demonstration, whether as regarded the mental or the physical powers of man, and more than two thousand years were to elapse before the circulation of the blood was correctly described. In tracing the progress of medicine from ancient to modern times, the course of civilization must be followed from east to west. The philosophers who laid the correct bases for acquiring all knowledge, failed to discover the true foundation on which to rear the science of medicine.

Hippocrates, the ablest and most renowned medical practitioner of antiquity, in declaring that "our natures are our own physicians," discovered the first germ of medical truth, but he left the mysterious world of application unexplored. The age of philosophical schools passed away without their laying down even so much as the lines to be followed in order to advance the study of medicine. Centuries were wasted in an endea-

vour to discover the vital principle of life and health, and centuries more in the vain pursuit of a universal remedy for all diseases—the search for this panacea has, indeed, scarcely terminated yet. When, with the progress of civilization, the paramount importance of a correct system of medicine was acknowledged, the science suffered in another way. Religion became her patron, but only to reduce healing to a superstition ; the State tried to succour her, but only to circumscribe her usefulness and fetter her advance, and Politics wooed her only to bring persecution and banishment to her votaries. In order to fulfil her mission amongst mankind Medicine only yielded her beneficent secrets to those who pursued their investigations for the sole purpose of healing. She was superior to the claims of party, beyond the control of armed power, and not subordinate to religion. It was only when other sciences waited upon Medicine that she opened her breast and disclosed Chemistry, the handmaid for whose coming Healing had waited thousands of years. Yet Chemistry, as the sister

science, has not been acknowledged quite two hundred years, and it is therefore no presumption to suppose that with her aid discoveries will be made in the art of healing for centuries to come.

ANCIENT MEDICINE.

ASSYRIA — PHŒNICIA — EGYPT — THE JEWS — INDIA — CHINA — GREECE — ROME — WESTERN AND EASTERN EUROPE.

MEDICINE IN ASSYRIA.

ASSYRIA was the earliest parent of the arts and sciences, but her memorials are so scanty that the historian has failed to discover from them to what degree of excellence she rose in the practice of medicine; and Egypt, with an embarrassing richness of records, has usurped the more honourable position. In Assyria the priests were the physicians, and their method consisted largely of the application of magical arts, combined with a limited use of compounds extracted from herbs. More than this is not known.

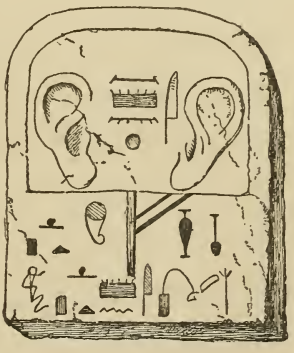
MEDICINE IN PHŒNICIA.

THE Phœnician writings on medicine are contained in Sanchuniathou's "History of the Nation," and these manuscripts are believed to be of the same age as the Ayur Veda of India. Their medical system bore a nearer resemblance to the Egyptian method than to that of any other nation ; but no records exist from which any details can be obtained. They admitted an enormous number of deities into their Pantheon, and the art of healing was no doubt exercised by the priest.

MEDICINE IN EGYPT.

THE earliest recorded facts relating to the practice of medicine refer to Egypt—the cradle of civilization, the birth-place of all the arts and sciences.

A king of the first dynasty is reputed to have written a work on anatomy; showing that considerable progress must have been made at that time in the study of the human frame. The character of the work is not known; probably it only related to the preparation of the body for the process of embalming. In the fabled origin of Egypt, Osiris, the good king, who taught



VOTIVE TABLET FOR CURE OF THE EAR.

the people agriculture, and enacted wise laws, is represented as always accompanied by Hermes, the great physician, the author of six books on medicine, which were preserved in the chief temple. The king and the physician were types of the two essential qualities necessary to secure prosperity and happiness: sovereign goodness and sovereign healing — the king labouring for the happiness of the people, and the physician curing all their diseases. Subsequent monarchs not only encouraged medical study, but also wrote upon the subject. This royal patronage ultimately led to State control being exercised over physicians; and, finally, the practice of medicine fell into the power of priests, in whose hands it rapidly degenerated into a superstition. We are indebted for many details regarding the practice of medicine in Egypt, to the researches of Sir J. G. Wilkinson and to the learning of Dr. Birch, as displayed in his editorial notes to Wilkinson's "Manners of the Ancient Egyptians." The physicians of Egypt devoted themselves to special branches of the art, after a general rudi-

mentary training. First in number and in importance were those who prescribed for diseases of the eye — the most common and the most serious malady from which the nation suffered. Others attended to the ear, the skin, and all diseases of the head. The dentists attained to great excellence in their department—a fact repeatedly confirmed by the examination of the teeth of the oldest mummies brought to this country.

Affections of the bowels formed another special study, while the disorders of portions of the intestines came under the care of distinct physicians. Nor was the practice of medicine confined exclusively to men, because women were trained to attend cases of childbirth from the earliest ages. Though the Egyptians had exceptional opportunities for medical observations in the course of embalming the dead, which was part of a physician's duties, their deductions were entirely wrong, because the action of the blood and the nervous power were attributed to vessels in the head. Observations were kept of the effect of certain processes in patients; but the

State, instead of directing continuous study of the human system, laid down a system of treatment for all known diseases, the observance of which was imperative upon the physicians, and if any departure were made from the recognized rules, and the patient died, the physician was held liable to criminal prosecution. If, on the other hand, the patient died, and it was proved that no departure had been made from the public formula, the physician was held free from blame. Bearing this in mind, Pliny remarked that in Rome there was no law to punish the ignorance of a physician, who was the only man that could kill another with impunity.

Perhaps it was owing to the fact that the medical writings of Hermes were kept in the great temple that in subsequent ages copies of the medical laws and certified observations were preserved in the chief temples throughout the land; and this may also have led, at a still later period, to the priesthood establishing temples for the worship of particular deities, and obtaining contributions from people who were desirous of being cured of their diseases.

Those who were allowed to practise medicine in Egypt, were paid salaries out of the public treasury; and they were liable to do certain services free. For instance, they might be summoned by the king to attend the army on an expedition, or they might be despatched on a foreign journey by direction of the monarch.

An Egyptian physician, in the reign of Rameses XII., was sent by the king to cure the Princess of Bakhtan; and Cyrus and Darius both sent ambassadors to Egypt to bring back medical men.

Sculptured representations of surgical processes have been found on many occasions; but of the actual treatment followed very little has been discovered. The country was rich in herbs, many of which were endowed with high curative powers, and their employment in medicines which were manufactured is mentioned by many profane writers, as well as in the Scriptures. Homer describes Egypt as a country whose fertile soil produced an infinity of drugs; while Jeremiah in his Lamentation sings: "O virgin daughter

of Egypt, in vain shalt thou use many medicines, for thou shalt not be cured." Herodotus says "every place is full of doctors in Egypt;" and Pliny assumed that that proved the country was subject to many diseases, apparently unconscious of the fact that every portion of the human body had its own specially appointed doctor.

The treatment varied according to the occupation and residence of the afflicted. Those who lived in the corn-growing regions paid special attention to their health. For three days in every month they subjected themselves to a course of medicine, believing that a preventive treatment was the best. It was generally held that all illnesses proceeded from inattention to diet; and if a short abstinence did not produce the desired result, then suitable remedies were administered. These were generally emetics, or slight doses of medicine. Herbs, animals, and minerals were all laid under contribution by the physicians. The curatives in use were clysters, drinks, fumigations, and plasters. Their draughts were mixed, boiled, and strained. The combination

of the drugs was usually effected with water, but sometimes beer, milk, oil, or wine, was used. Honey was always employed to sweeten, and the draught was taken hot at night and in the morning.

At what period medicine fell into the hands of the priesthood is not known, but in a country where gods were very easily multiplied, it is not to be wondered at that an interested class should seek to assign the blessings of healing to the interposition of deities. Temples arose in every city and town, dedicated to one or other of the gods, who were supposed to preside over separate portions of the body, and the practice of medicine was debased. When the priests in attendance at these temples became impoverished, they sent some of their number into the country with a flag of their deity, to collect alms from those who suffered in that portion of the body under the special supervision of the temple god. But the Egyptian physicians finally shook off all the fetters with which they were enslaved, and in the school of Alexandria established the scientific study of the art on an enduring basis.

MEDICINE AMONG THE JEWS.

THERE are three passages in the Old Testament referring to the practice of medicine before Israel went into Egypt. They are found in Gen. xxv. 26, Gen. xxxv. 17, and Gen. xxxviii. 27, 28. These were midwifery cases, and in two instances distinct mention is made of a midwife who attended. When the Israelites settled in Egypt they found the women invariably acted as midwives there, and throughout the sojourn in that land, which lasted 430 years, this practice was observed by the Hebrew women. The first reference to physicians, which occurs after the sojourn in Egypt commenced, is in Gen. l. 2, when, seventeen hundred years before the birth of Christ, "Joseph commanded his servants the physicians

to embalm his father, and the physicians embalmed Israel." Nearly two centuries later Pharaoh, fearing the increase of the children of Israel, "spake to the Hebrew midwives, of which the name of the one was Shiphrah, and the name of the other Puah: and he said, If it be a son then ye shall kill him," Exod. i. 15, 16. These two passages at the beginning, and the other at the close of the sojourn in Egypt, show that the Israelites were acquainted with and practically followed the Egyptian method of medicine; and there can be no doubt that they carried the practice with them into the desert, and that it was revived after their settlement in Palestine.

The references to diseases, appliances, and curatives, which abound in the Old Testament, therefore, partly illustrate still further the Egyptian method, to which are added a limited number of new processes, some of them divinely inspired.

Circumcision was one of these, which was practised by the Israelites throughout the sojourn in Egypt, and the people of that country learned it

from them. When the Israelites came out of Egypt and became settled, the profession of physic was a part of the duty which devolved upon an order of the Levites—certainly not the highest order, whose whole duty was comprehended in the most sacred office of the priesthood—but physic was not exclusively practised by the Levites. These Levitical physicians do not appear from any portion of the Old Testament to have discovered any disease peculiar to them as a nation, nor to have adopted any special medicine of remarkable renown ; but they simply carried out those rules which they had previously learned in Egypt. The fact of many diseases and many medicines being mentioned in the Bible gives us a clearer conception of the state of the art in Biblical times, both in Egypt and in Palestine, than is afforded by the papyri and stone monuments of the Egyptian period. With regard to the former, excluding such diseases as are specifically recorded as of Divine infliction, we have mention of the following: ophthalmia, "Leah was tender-eyed," Gen. xxix. 17; "consumption, and

the burning ague," Lev. xxvi. 16; "fever," "inflammation," "an extreme burning," Deut. xxviii. 22; "a rising," "a scab," "leprosy," "a boil," "a burning boil," "plague of the scall," "sores," Lev. xiii.; "the botch of Egypt," "the emerods," "the scab," "the itch," Deut. xxviii. 27; "the scurvy," Lev. xxi. 20; "issue of blood," Lev. xv. 19; "a sore botch" in the knees and in the legs, from "the sole of the foot unto the top of the head," Deut. xxviii. 35; "palpitation of the heart," Gen. xiv. 26; "epilepsy," Mark ix. 18; "withered hand," Matt. xii. 10; and "palsy," Luke v. 18. Mention is also made of other classes of persons suffering in various ways. Thus in the record of those who are not "to offer the bread of his God," Lev. xxi. 19, 20, mention is made of men blind, lame, flat-nosed, "possessing anything superfluous," "broken-footed," "broken-handed," "crook-backt," dwarfs, and having a blemish in the eye.

With regard to the known medical remedies, and the instruments or methods made use of, mention is made of "eye salve," Rev. iii. 18, and of a lump of figs laid for a plaster upon the boil

of King Hezekiah, Isa. xxxviii. 21. References are also made to "an aul" for boring ears, Exod. xxi. 6; "lancets," 1 Kings xviii. 28; "a roller to bind," as applied to a broken limb, Ezek. xxx. 21; "a sharp stone," Exod. iv. 25; and "sharp knives," Joshua v. 2.

Their chemical knowledge comprehended the reduction of gold to powder, as shown by Moses when he burnt the golden calf in the fire, "and ground it to powder," Exod. xxxii. 20, and a knowledge of the effect produced by "vinegar upon nitre," Prov. xxv. 20.

The efficacy of bathing and washing in water is several times referred to—"bathe his flesh in running water," Lev. xv. 15; "Go and wash in Jordan seven times, and thy flesh shall come again to thee, and thou shalt be clean," 2 Kings v. 10; and frequent bathing was prescribed by the Jewish ritual. The pools mentioned both in the Old and New Testaments are the earliest historical references to public bathing-places.

In further proof of the established character of medical science in Biblical times, the art of

the apothecary is twice mentioned in Exod. xxx. 25, and 35; "the ointment of the apothecary" is spoken of in Eccles. x. 1; and "the powders of the merchant" are referred to in the Song of Solomon iii. 6, which proves that the apothecary obtained some supplies from distant places.

Their sanitary regulations were perfect and most elaborate, because divinely inspired; so, as a nation, the art of the physician in Palestine, free from state control, attained a greater degree of perfection than was known in Egypt.

What progress was made during the separate existence of the Jews as a nation there are no means of judging; but after Christ came the scientific study of medicine was altogether abandoned. The miracles of our Lord, shown in the healing of the sick and the cure of bodily infirmities, led to a belief that the physicians in their difficult and disagreeable processes were all wrong, and that the true remedial mode was by prayer, fasting, and faith.

There are about seventeen cases of the cure of sickness by our Saviour, and these were of

the most varied character, including the issue of blood, blindness, lameness, leprosy, and palsy, deafness, dumbness, and dropsy; in fact, "as many as touched the hem of His garment" were made whole. Moreover, our Lord imparted to His disciples power "to heal all manner of sickness and

SHE TOUCHED THE HEM OF HIS GARMENT.

all manner of disease;" and the apostolic records prove that they went out "and anointed with oil many that were sick, and healed them," healing everywhere, says Luke ix. 6; and though the disciples sometimes failed, as Matthew records (xvii. 14–18), it was the exception and not the rule.

Our Saviour's example and teaching led to the most determined efforts being made by the Christian Churches, as they arose, to be considered the sole procurers and dispensers of health to all sick people; and pagan nations also claimed for the priests of their deities the exclusive right of healing power. The result for a time was that medicine made no advance, and the most profound ignorance continued with regard to the causes of disease and the proper means of cure.

MEDICINE IN INDIA.

THREE hundred years after the physicians of Egypt embalmed Israel, and fourteen hundred before Christ, skilled writers in India compiled a summary of all the medical writings in existence.

This was called the "Ayur Veda," and is the most ancient of the sacerdotal medical writings. The book was divided into eight portions, and each dealt with a separate branch of the science. A medical caste among the Hindoos, called the Vaidya, took their name from this ancient medical compilation. There also arose among the Hindoos a class called the Rishis, who travelled from place to place healing the sick, and who were accompanied by students, to whom they lectured upon the cases that came before them. It formed

a part of the training of these students to take notes of the lectures they heard, and many of the treatises prepared from their notes are still in existence. Hindoo medicine never attained any fame; and English methods and practice are now rapidly displacing the regulations of the "Ayur Veda."

MEDICINE IN CHINA.

THE practice of medicine in China has always been debased. In the earliest times the art was in the hands of priests of a low order, who had no knowledge of anatomy or surgery. These pretended to discover the seat of disease by the pulse, the eyes, nose, tongue, ears, or voice, and they sought to effect cures by causing vomiting or purging. They administered medicines compounded of various herbs, and frequently mixed seventy or eighty in a dose, destroying the natural effect altogether. Traditions exist which show that surgery at a very early period attained great perfection. There is a story preserved of a surgeon, one Chinquei, who, prior to the Christian era, removed diseased viscera from the lower part of the abdomen of a

patient, which was opened for that purpose, and the patient speedily recovered after the operation. But the secrets of the practice were quickly lost, and ignorant barbers bled, scarified, or set fractured limbs. The physicians believed that the human body was composed of five elements, water, fire, wood, metal, and earth; that health was maintained only so long as the elements were perfectly balanced. A doctrine very similar to this prevailed in the philosophical medical schools of Greece. The Chinese knew nothing of chemistry, nor had they any theory as to the circulation of the blood. A preparation made from singara was their panacea for all human ills; and seventy-five different combinations of it are preserved in the Chinese pharmacopœia. Diseases were very common amongst the people, especially a contagious form of leprosy; cutaneous diseases were also of frequent occurrence, yet they are not known to have suffered from anything resembling the great plagues which have devastated other portions of the world, and their happy exemption from these is thought to be owing to the love of

ventilation in their houses, to their use of strongly scented drugs, and burning odoriferous woods. They are not known ever to have had medical schools; and any one who had read a certain number of medical writings was allowed to practise. The English methods are now slowly permeating China.

MEDICINE IN GREECE

WAS mythologically attributed to the god Æsculapius, son of Apollo and Coronis. His temples were to be found all over Greece, and no other deity in Grecian mythology shared with him his medical attributes. The sites chosen for his temples were suggestive; they were in all cases outside the town or village, on hill-sides, and near springs of water.

The principal seat of his worship was Epidaurus, where his temple was surrounded by an extensive grove of trees, abounding with serpents. These, the emblems of health and life, were also kept in his temples. The temple at Epidaurus is supposed to have been erected twelve hundred years before Christ. His worshippers were sick

people, and those in health by whom they were loved. When the sick folk were made well they hung up tablets on the walls of the temple, on which were recorded the name and age of the patient, the disease and its symptoms, and the medicines administered which effected the cure. These tablets, flattering to the vanity of the priestly physicians, laid the basis for a subsequent systematic study of diseases, their symptoms, and their treatment.

The mythical origin of Greek medicine selects Mĕlampus as the first who practised the medical art in Greece; and he is believed to have acquired his skill by a divine revelation. Near to his house there stood an oak tree, in whose trunk a serpent made its nest. The servants of Mĕlampus killed the old serpent, but their master would not suffer the young ones to be molested, and he fed them daily with his own hands. One day he slept beneath the shade of the oak, and the young serpents creeping about him licked his ears. When he awoke, he found to his astonishment that he could discern the

uses of inanimate things—herbs, minerals, and all dumb animals. He began at once to apply this knowledge to the service of his fellow-creatures, and kings and princes became his patients. Iphicles, son of Phylacus, consulted him on his want of issue, and Mĕlampus told him to scrape the rust off his father's knife in water, and drink portions of the water during ten days. Iphicles followed these instructions and became the father of Podarces and Protesilaus. Both myths thus refer the earliest discovery of medicine to the interposition of divine providences.

The priests in charge of the Æsculapian temples were supposed to have special medical powers imparted to them. They were regarded as descendants of the god, and were called Asclepiadæ, and though the practice of medicine remained in their hands for nearly eight centuries, it made very little progress from a scientific point. During these centuries medicine was regarded as indissolubly connected with religion, and the temples were at one and the same time places of worship and hospitals for the sick.

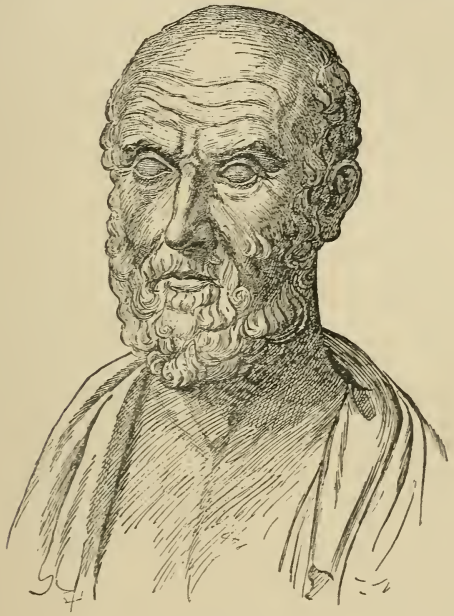
Six hundred years before Christ the philosophical schools of Greece arose, and speculative theories of every kind had their beginning. These absorbed the attention of the ablest men, and no attempts were made to penetrate any of the secrets of nature. Of the temples reared to the worship of Æsculapius the most celebrated were those at Rhodes, Epidaurus, Cnidos, and Cos. In them medical priests carried out their healing practices, which combined a little enchantment with a great deal of faith and an abundance of water, applied after the hydropathic method, and grateful patients hung their votive tablets for generations, until 750 years had passed away.

Hippocrates, of Cos, was born 450 years B.C. He was the father of medicine, and the founder of medical literature and science.

Cos was an island, one of the Sporades, lying at the mouth of the Ceramic Gulf, and opposite to Halicarnassus. The chief city stood on the north-eastern side of the island, in a situation commanding lovely views, and near it was the

Æsclepiēum to whose worship the whole island was consecrated.

The chief families claimed their descent from the priests of the temple, and one amongst them



HIPPOCRATES.

was Heraclides, a professed physician. His son was Hippocrates, who was thus born of the sacred family. In early youth Hippocrates was educated under his father's superintendence by the priests in the temple, and afterwards by Hero-

dicus, the physician of Selymbria, in Thrace, while Gorgias of Leontini instructed him in the art of rhetoric. When he arrived at mature age he embraced the philosophy of Pythagoras, as taught by Heraclitus of Ephesus, namely, that fire was the primary form of all matter, and that by the contact and combination of its particles, which were in perpetual motion, the four elements of nature were produced.

He was the first student of medicine who examined the recorded cures as set forth in the votive tablets which had accumulated at the temple, and to his methodical examination of these cases, his early successes in Cos were attributed. But he did not rest satisfied with his home triumphs; and during many years he made extensive journeys in foreign countries, studying and practising, so that his fame spread throughout all the kingdoms bordering upon Greece.

The principles he afterwards laid down for the guidance of physicians are still at the foundation of medical science. He held and taught that

the basis of all knowledge was the accurate observation of actual phenomena, and that the correct generalization of phenomena should be the sole foundation of reasoning. If speculative theories were in opposition to the records of careful observations, then theories were to be regarded as of less value than observations.

In his works the descriptions of particular diseases, where they can be traced, are found to be correct to nature. His practice was very successful, and won for him fame and riches; yet at this time anatomy was not generally practised, physiology was unknown, and a few vegetable substances only, yielded the medicines he used. He was the first to describe some of the functions and powers of the human body, and thus laid a base for physiology as a new study. He announced the existence of a power within the living human being, which he styled "nature," that influenced the whole frame, and held that the "nature" of man was always striving by its own methods to maintain the body in health: "Our natures are the physicians of our diseases," was

one principle he laid down. He held that the origin of all disease was in the fluids of the system, and this became the foundation of humoral pathology. He was the first to declare that there were "crises" in the progress of diseases, and the tendency of nature to effect a cure at certain stated periods. These crises were manifested by the bowels or the skin, and his observations on the regulation of these led to the most valuable discoveries. He was also the first to urge that changes of temperature and atmosphere, and the seasons, all had separate and special influences on the progress and character of diseases, and caused a liability to particular sicknesses at certain fixed seasons of the year.

In his personal practice he used purgatives very extensively and administered a great variety. He used the lancet, the scarificator, and the cupping glasses, administered injections, and inserted issues. He makes frequent mention in his writings of liniments, ointments, and plasters, and laid great stress upon the importance of regulating the diet of sick persons. Yet Hippo-

crates had little if any knowledge of anatomy, and was entirely ignorant of the relation which subsists between the vital parts. The principles which he laid down became for many centuries the distinguishing features of individuals, sects, and schools; and time which should have been devoted to independent research was wasted in discussing subtle points, such as the exact amount of aid which should be given to nature when a crisis came in a disease, and whether nature should not rather be assisted to resist disease. The theory of the fluids, their character, and their influence, which became the science of humoral pathology, was universally adopted, and exercised sway over the science of medicine until the commencement of the eighteenth century. Finally he detached medicine from philosophy, and made it an independent science.

The age of Hippocrates was one of the most remarkable that the world has ever known. In his time Pericles flourished, and won for the Greeks their greatest military triumphs; and Socrates taught his followers to believe in the

immortality of the soul. To the example of Pericles the world owes many military successes, and to the teachings of Hippocrates and Socrates the true scientific bases of philosophy and science. At the period when Hippocrates flourished the study of science had been almost snatched by the philosophers from the exclusive control of the priests, and they soon became antagonistic to each other.

The influence of Hippocrates upon the science of medicine was made apparent in his own time by the rise of the sect of dogmatists about 400 B.C. The members of this sect held that the first duty of the physician was to become acquainted with the structure and the functions of the several parts of the human body, and that the next was to understand the action of the remedies that were proposed to be applied.

The last of the Asclepiadæ, and the successor of Hippocrates in medical fame, was Praxagoras, also a native of Cos. He belonged to the sect of the dogmatists, and, following out their teaching, studied anatomy and physiology very closely,

so as to attain great celebrity. He is the author of observations on the pulse. One of his pupils was Herophilus, a native of Chalcedon, in Bithynia, on the coast of the Propontis, nearly opposite to Byzantium. He forms the connecting link between the physicians of Greece and those of the new Egyptian school founded at Alexandria.

On the division of the empire following the death of Alexander the Great, Ptolemy Soter obtained the government of Egypt, and took up his residence in Alexandria. Under his rule this city quickly rose to the point of eminence intended for it by Alexander, and as a commercial city it became the most celebrated in the world. To him is due the credit of founding the library and museum, which made the city as celebrated for the sciences as it became for commerce. His son and successor, Ptolemy Philadelphus, followed in his father's footsteps, and in their reigns Alexandria, as a seat of learning, was raised to permanent fame. They invited to the city the most learned men of the age, and amongst the most celebrated men who resided

there were—Demetrius, of Phallerus, the orator; Euclid, the mathematician; Stilpo, of Megara, the philosopher; Theodorus, of Cyrene, the Atheist; the poet Philetas, of Cos; the grammarian Zenodotus; the painters Antiphilus, Apelles, Timocharis, Aristarchus, and Aratus. These men, with many others as illustrious, were maintained at the public cost, and they founded a school of learning which existed for nearly a thousand years. The library which was collected at the expense of the state contained copies of all the scientific and philosophical works in existence. In all there were 400,000 volumes, embracing 90,000 distinct works; and still the books increased to such an extent that the Temple of Serapis was made a second library, and here 42,800 volumes were accumulated.

Nearly a century later Eumenes II., king of Pergamus, an ally of the Romans and a most enlightened sovereign, founded a library in his chief city which rose to be a rival to that of Alexandria. The formation of this library gave rise to the first use of parchment as the medium

for preserving the works of the philosophers. In the school formed by the library Galen first studied medicine. This library was, after an existence of nearly a century and a half, given by Antony to Cleopatra, by whom it was united to those at Alexandria.

This city also became celebrated as the seat of one of the seven Churches, and St. John refers to it not only as a place where the Christians were persecuted, but as the seat of idolatrous worship, which is thought by commentators to mean the worship of the serpent in the temples of Asclepius.

In the school of Alexandria medicine was for the first time made a special study, freed from the control of priests or the state, and delivered from the entanglements of philosophy. The advance made by the science was most pronounced. Anatomy received special consideration, and schools were opened for that branch of study in which dissection was carefully taught.

Herophilus of Chalcedon, in Bithynia, has always been regarded as the link uniting the

Greek with the Alexandrian schools of medicine. He first studied at Cos, having for a master the renowned Praxagoras, and thence proceeded to Alexandria in the lifetime of Ptolemy I., and at that monarch's invitation. At the time of his arrival in the city, the philosopher Diodorus Cronus had met with an accident by which one of his shoulders was dislocated. Herophilus reduced the dislocation, and was afterwards induced by the solicitation of the king and the learned men to take up a permanent residence in the city. He devoted himself to the study and teaching of anatomy, and is regarded as the founder of scientific anatomy and physiology. He was the first to teach the anatomy of the nervous system, and the principles of neurology, and the first to teach that the brain was the seat of thought. He declared the true functions of the motor and sensitive nerves, and his name is indissolubly connected with the study of anatomy in the torcular Herophili. As an anatomist he has the reputation of being the most ardent of his day, dissecting animals as well

as human subjects, and tradition declares that he actually dissected some criminals while they were alive. Though so much in advance of all his contemporaries, yet Herophilus could not altogether shake off the philosophical training of his youth, and wasted much valuable time in endeavouring to make his discoveries agree with the acknowledged formularies of the time. The most important contribution to science which he left behind him was a treatise on the pulse. He was, on account of his important labours, regarded as one of the founders of the Alexandrian school of medicine.

Erasistratus was another eminent physician of Alexandria in the time of Ptolemy I., and a contemporary of Herophilus. He was a native of Julis, in Ceos, and studied at Cnidos. For some time he lived at the court of Seleucus Nicator, king of Syria, where he won great fame; but attracted by the invitation of Ptolemy I., he proceeded to Alexandria, where he pursued the study of medicine with great ardour to extreme old age. Like Herophilus he devoted the prin-

cipal portion of his time to the study of anatomy, and he is included in the tradition which declares that criminals were sometimes dissected alive by the physicians of Ptolemy I. So far as the forms of his practice are known he is said to have favoured a dietetic regimen, administering powerful remedies sparingly, and only occasionally using the lancet; he was the first to introduce the use of chicory for hepatic affections.

Ptolemy II. took delight in the study of natural history, and formed collections of rare animals in the city, which led to the eager pursuit of that science also in some of the schools.

Philinus of Cos, a Greek physician of eminence, who flourished at the time of Ptolemy II., was the reputed founder of a new sect known as the Empirici. He insisted that the sole guide of a physician should be experience in personal observation, or the observations of others. The empirics were thus the direct opponents of the dogmatists; both sects numbered distinguished members, and for many centuries a bitter and fruitless controversy waged between them, and

the direct advance of the science was greatly hindered. Some of the members of the family of Herophilus, practising physicians, established medical schools at Laodicea, a city on the coast of Syria, and at Smyrna, where was one of the two out of the seven Churches of Asia, which St. John addressed without rebuke.

Fifty years after the death of Herophilus, in the third century B.C., Serapim, a physician of Alexandria, attained considerable note. He attached himself to the Empirici, and has the reputation of having extended the basis of the system first made known by Philenus. After the lapse of a century, the reputation of Serapim over-mastered that of Philenus, and he was mistaken for the discoverer of the system. He is said to have been of a controversial turn of mind, and to have written against some of the principles laid down by Hippocrates, but no fragment of any such composition has survived. Another distinguished member of this sect was Heraclides. He was born at Tarentum, a famous Greek city standing on the west coast of Calabria,

and, devoting himself with great assiduity to the practical study of medicine, he advanced the principles of general pathology, discovered many useful remedies, and performed with success many surgical operations.

Mithridates the Great, king of Pontus, who died in 63 B.C., the author of one of the most sanguinary massacres of ancient times, by which 80,000 Romans and Italians lost their lives, has had his name associated with an antidote to poison, but it is not known that he was the discoverer of it. The king was constantly in dread of being poisoned, and took the antidote (atheriaca) so frequently that when at last he desired death and took poison, it produced no effect upon him, and he was indebted to one of his soldiers for the stroke which ridded him of life.

For two centuries before Christ there began to be invented pharmaceutical compounds, some of which became famous and retained a place in the Pharmacopœia until the eighteenth century. One of these was the discovery by Damocrates of a mixture still bearing his name, and composed

of forty-four ingredients; and the philenium, so named after Heramius Philo, was a sedative compound, the basis of which was opium.

In the first century before Christ the study of the science of medicine in Alexandria began to decline. Great opposition arose amongst the mixed population of the city to the practice of anatomy; obstacles were interposed by the rulers of the city, and the professors and teachers, abandoning all practical and scientific study, became absorbed in the discussion of speculative theories. The library suffered severely from fire when Julius Cæsar was besieged in the city, but was subsequently replenished by the contents of the library at Pergamus. Nor was the fame of the medical school greatly lessened until many centuries after the birth of Christ, when Arab domination succeeded to that of Rome. The eminence of the school as a seat of Greek learning then passed away.

MEDICINE IN ROME.

THE Roman people produced no native physician of eminence until more than five centuries had passed away from the foundation of the city. At first the heads of families practised medicine amongst the members of their household, as in the earliest ages among the Egyptians and the Jews. Cato the Elder, two centuries before the birth of Christ, was the physician of his family, and the tradition is preserved that his wife died from his ignorant treatment. He administered his remedies in association with the use of words, like the Anglo-Saxon physician of a thousand years later. Greek schools were then at their highest fame, but as a Roman, Cato was imbued with an incurable hatred of everything of Greek origin, and

caused all Greek professors to be driven from Rome, exempting only the physicians. That hatred of everything having a Greek origin existed for centuries; and two hundred years after the death of Cato, Pliny the Elder exhibited an aversion as strong as Cato's to every one from Greece. But in his wonderful Natural History, he was wise enough to avoid this exclusiveness, and embodied many curious and a few valuable things which he extracted from Greek writings. The Romans first became conscious of their want of medical knowledge during the occurrence of a plague in 187 B.C. Their people died without any method being put into operation to check the ravages of the disease. The city resolved to delay no longer their neglect of medicine; and a deputation of six was sent to take counsel with the men of Epidaurus. Their suit was successful, and the priests of the celebrated Æsculapian temple gave them a sacred serpent, emblem of the god, with which they returned to Rome. On approaching the city the serpent was given its liberty, and at the spot where it landed

a temple was erected to the worship of Æsculapius. Hence arose, as in Egypt, India, amongst the Jews, and in Greece, the priestly domination over the exercise of the healing art.

How long the priests maintained their control cannot be ascertained, but it was for a much shorter period than in any other country. The first physician who is known to have settled in Rome was a guest of the city, a Greek named Archagathus, upon whom the Senate conferred the proud distinction of citizenship, and whom they installed at the expense of the state in a shop standing in the Acilian Causeway.

The extension of Roman power over all the surrounding countries naturally drew to the great capital the learned men of every profession; and thus her schools rose rapidly into existence and fame. One of these learned strangers was Asclepiades, born at Prusa, in Bithynia, who, having studied at Athens and Alexandria, set himself up as a teacher of rhetoric 90 B.C. in Rome. Athens was the principal choice of the Roman nobility whither to send their sons for

education, and a professor who had come from that city was naturally received with honour at Rome. Asclepiades was not long in discovering that medicine was the study most favoured, and he abandoned rhetoric altogether, and, having mastered all the knowledge of medicine to be learned in the city, commenced practising as a physician. Casting aside all the medical theories then adopted, he sought to establish, upon a speculative basis, a new medical school. He studied the system most popular with the cultured Romans, the atomic theory of Democritus and Epicurus, and applied it to account for the presence of disease in the human frame. Upon the regulation of the pores of the skin depended the maintenance of health. There was much originality and a certain amount of truth in his teaching, and the popular theory of the pores of the body is derived from him. He deserves credit also as the inventor of the shower bath. He was a strong believer in the advantages resulting from a free use of cold water, and he was the first to attempt a classification of diseases by

distinguishing between those which were acute and those which were chronic.

Themison, who flourished 60 B.C., was one of the pupils of Asclepiades. He was born at Laodicea, in Syria, famous for its medical school. His course of practice was very simple, and easily acquired. He taught that for each day the patient should have a special diet according to the character of the disease from which he suffered, and that every disease required one particular treatment. This gave rise to a new medical sect—the Methodici.

After Themison, Thessalus, a native of Tralles, in Asia Minor, acquired a certain amount of notoriety, more by his bold audacity than from any learning or skill he possessed. He affected to perfect his pupils in six months, and drew after him a great following of youths of limited education and of low birth, and after taking them with him to visit patients for half a year, he gave them each a written authority to practise as a physician.

Soranus, a native of Ephesus, studied in the

school of Alexandria, and afterwards practised in Rome. He was of the sect of the Methodici, and gave up the study of medicine for that of anatomy.

Cælius Aurelianus, a famous Latin physician, was born in Numidia, and was a follower of the Methodici. He was a painstaking writer, and many of his books still survive. One is upon acute diseases, and another on chronic diseases. These are valuable from the fact that they embody the opinion current in his day. With him there faded the distinctive existence of the Methodici.

Cornelius Celsus, who is supposed to have flourished under the reigns of Augustus and Tiberius, was one of the most talented of the Roman school. One of his works on medicine still exists, having enjoyed a well-deserved reputation. This is divided into eight subjects: two dealing with diet, two devoted to internal diseases, two to external diseases, and two to surgery. The most common and best known remedy in a case of hydrophobia was first suggested by Celsus: it

was to immerse the patient in a bath of cold water several times at short intervals.

With Claudius Galenus Rome attained her highest fame as a medical school, and at his

GALEN.

death there followed a swift decline. In his time science had commenced to woo medicine, but the promise of distinction was quenched by a rude military power which would not suffer science to exist.

Galen was born at Pergamus, A.D. 130. Nicon, his father, was an architect and geometrician, and he carefully directed the education of his son, intending him to become a philosopher. But when Galen was in his seventeenth year Nicon had a dream, which caused him to dedicate his son to the profession of medicine. After studying for three years, Nicon died, and Galen soon afterwards began to travel for purposes of further study. He went to Smyrna, where he studied under Pelops the physician, and he afterwards went to Corinth and Alexandria. After nine years had been consumed in this way he returned to Pergamus, and was appointed physician to the School of Gladiators. Six years were spent in his native place, in the course of which his reputation became widely acknowledged, and then, on the occurrence of some local commotions, he proceeded to Rome. His superior talents soon attracted public acknowledgment; but he was unhappy in the period chosen for his visit, and after four years he returned once more to Pergamus. But the Emperor Marcus

Aurelius, unwilling to lose the personal services of so renowned a physician, summoned him to return to Rome; and when the emperor set out to conduct the war on the Danube, he committed his son Commodus, then only nine years of age, to the care of Galen. During this period Galen, being a man of indefatigable industry, compiled a cyclopædia of medical literature, which was regarded as the text book of medicine for upwards of thirteen centuries. Finally, in his old age, Galen returned to Pergamus, where he is supposed to have died in his seventieth year.

Galen never would ally himself with any one of the medical sects in existence in his day, and ridiculed those who affected to belong to any one of them. He taught his followers to select from each sect those principles which their own experience approved, and confine themselves to none. With Galen medicine as a science perished in Rome. Military force alone sustained the empire, and as it hated science in all her forms, she soon succumbed. The

Emperor Caracalla first drew sword against the votaries of science; and after many cruelties in Italy, he eclipsed all former deeds by plundering Alexandria, massacring the most famous of her professors, and forbidding all discussions in public. Under such an emperor literature, medicine, religion, and science became thoroughly debased.

MEDICINE IN WESTERN AND EASTERN EUROPE.

WHEN medicine revived in Western Europe it was as a debased adjunct of the Christian religion.

In Eastern Europe medicine still survived as a distinct and honourable science, and a partial revival took place in the city of Constantine the Great, A.D. 328.

Oribasius, who was repeatedly appointed Quæstor of Constantinople, was a well-known medical commentator. He was born at Pergamus, received his education under Zeno at Sardis, and became a member of the court of Julian the Apostate. He flourished A.D. 360. As a writer upon medical questions he was careful and laborious, and his works abound with references to writers that have escaped the notice

of Galen. Oribasius is supposed to have compiled upwards of seventy books, and by request of the emperor their contents were summarized in one.

After the conversion of the Emperor Theodosius, by the intervention of St. Ambrose, A.D. 390, the official destruction of paganism followed. Bishop Theophilus, of Alexandria, acting upon the emperor's decree, captured the pagan temple of Serapis, and destroyed the invaluable collection of works forming the library. This was the beginning of the decline of Alexandria as a great seat of learning. The Christians were also strongly opposed to the pursuit of anatomy, and another difficulty was thereby interposed to the advance of science, which was made apparent in the medical writings of those who followed.

At the beginning of the fifth century there lived Nemesius, Bishop of Emesa, who wrote a famous treatise, entitled "The Nature of Man," in whose papers, since Harvey demonstrated the circulation of the blood, some learned men have affected to find a very near approach to the

same discovery; but no original claim has been seriously made in his behalf.

Subsequent writers, until military despotism finally extinguished learning, exhibited a strange falling off; the flow of originality was befouled, no fresh discoveries were made, and the science existed on the traditions of previous years.

Aetius of Amida, who flourished A.D. 500, made a large collection of secret remedies, and in doing so preserved names of Egyptian and Persian physicians otherwise unknown; but these are of little value, while the remedies that are original are to be administered under the influence of rites, spells, and incantations.

Alexander of Tralles, who flourished A.D. 540, was a Christian medical writer of some originality, but a great believer in the combination of magic and incantations with medicine. In his works the name of Osthanes, one of the Persian Magi, is preserved.

Procopius, the historian, born at Cæsarea A.D. 500, has left on record so many valuable notes on medicine that scholars have thought

he must have been a physician. In the course of a very busy life he acted as assessor to Belisarius in Armenia, was present in the Persian wars, took part in the expedition against the Vandals in Africa, and was also a participator in the Gothic war in Italy. He wrote the history of his own times, in which he mentions the names of the most famous physicians of his acquaintance, and takes special pains to chronicle their triumphs. From him comes a description of the great plague of A.D. 543, which, coming out of Egypt, spread throughout the world, and carried off 10,000 victims a day during its stay in Constantinople, where the historian was at that time residing.

In the person of Paul of Egina, the science of medicine in the East realized her final triumph. He was the most distinguished physician of the Greek school, and in his works the latest development of medical knowledge was enshrined. While he was still living, the forces were in preparation for the utter overthrow of all scientific teaching and study.

About the year A.D. 610, Mohammed proclaimed himself as a prophet, and a few years afterwards entered upon his career as a conqueror. Eight years after his death, in the Caliphate of Omar II., the Arabs invaded Egypt under Amru, and captured Alexandria after a siege, A.D. 640. In 641 Rome recovered possession of Alexandria; but the city fell once more into the hands of Caliph Omar II. by the valour of Amru in 646. Then, by order of the Caliph, the schools of literature, philosophy, and science were broken up; and the enormous library, according to tradition, was used to feed the furnaces attached to the city baths.

The most famous philosophers and teachers in Alexandria fled from the troubled city, and carried with them their learning. In this way medical science was carried once more into Greece and to Southern Italy.

As soon as the Caliphs had established their government, they sought by the patronage of arts and sciences to found schools of learning in their dominions, and medical schools grew

up under their care in India and Tartary. Translations of the leading medical writings were made into Syriac and into Arabic, and the Caliphs became munificent patrons of the most skilful physicians. George Bactishma, an Arab physician, who attended the Caliph Abu Jaafer Al Mansur (the founder of Bagdad) through a serious illness, received as his reward ten thousand gold pieces.

Under the Caliphate of Haroun-al-Raschid, Bagdad became adorned with schools and colleges, and the city gave shelter to many thousands of learned Christian exiles from other countries. In his reign, Alexandria regained some of her fame as a seat of medicine; and the patriarch of that city, a celebrated physician, visited Bagdad to prescribe for one of the Caliph's wives, who had fallen sick. One of the most distinguished Arab physicians was Mesue, the son of a druggist who studied under Gabriel Bactishma, the son of George, and he was employed by the Caliph to translate into Arabic all the medical works that could be found.

Rhazes, a native of Persia, born in A.D. 852, settled in Bagdad as a physician when thirty years of age. His modern fame is based on the fact that he was the first physician who wrote upon small-pox and measles, and his work was so highly esteemed in his own time that it was translated into Greek, by order of one of the emperors.

Haly Abbas, A.D. 980, a prolific Arabian writer, left an elaborate description of the medical writers of his country.

Avicenna flourished about the same time as Abbas, and his fame as a physician was founded upon a work called "The Canon," which was a text book amongst the Arabs for nearly three centuries, and in Europe it was highly esteemed throughout the Dark Ages. During Avicenna's time the distant provinces of the empire were severed from the Caliphate, and the military element assumed supreme power. Henceforth the progress of science in all its branches was stayed. Ultimately the advancing Turk swarmed over Bagdad, and science disappeared.

When the Arabs penetrated Spain in A.D. 711, and had established themselves in that country, the rulers became liberal patrons of the arts and sciences; schools of learning were established, and libraries founded, but their medical schools did not produce any great names until the beginning of the twelfth century.

Avenzoar, a man of noble birth, rich, and a Jew, coming of a family of noted physicians, was the most original observer produced in Spain. He flourished A.D. 1180, at a time when power was rapidly falling into the hands of Christians. When the Moorish rule was utterly broken it was succeeded by a Christian government dominated by priestcraft, and then, by the aid of the Romish Inquisition, the pursuit of science was utterly quenched.

MEDIÆVAL MEDICINE.

SAXON LEECHDOM—THE DARK AGES.

SAXON LEECHDOM.

WHILE yet the Dark Ages were brooding over Europe, Saxon England was struggling to master the elements of the science of medicine. The domination of Rome passed away with the abdication of Augustus in A.D. 476. Ten years previously the first Bishop of Rome had been elected; and while the nations of Europe were fighting against the inroads of the northern barbarians on the one hand, and the Moslems on the other hand, the priests of Rome were spreading the principles of the new faith in every direction. The barbarians and the Moslems alike quenched all scientific study, and learning became an adjunct of faith. There naturally followed a great hindrance to the pro-

gress of science generally, and medicine was altogether enslaved. The priest became the physician, and medicine was debased by superstition.

When the earliest priests of Rome brought faith and medicine to England, they found that the science of healing had professors and a literature of its own already. The major portion of the Saxon remedies were at that time surrounded with superstitious rites, and the priests wisely substituted forms of prayer for pagan incantations, and in this way medicine was inwrought with the new religion. In a work entitled "Leechdoms, Wortcunning, and Starcraft of Early England," in two volumes, published under the authority of the Master of the Rolls, and edited by the Rev. O. Cockayne, M.A., the most complete account appears of the practice of medicine in Saxon times.

The leech books edited by Mr. Cockayne were written for the use of medical practitioners; and the words, "as leeches know how," frequently made use of prove that medicine was made a study. The herbs of the garden, the field, and

the forest afforded the Saxons their chief materials for healing all sicknesses; but they also occasionally drew remedies from birds and animals.

ANGLO-SAXON MOTHER AND INFANT.

Upwards of fifty well-known herbs are amongst those mentioned in the books, and of foreign drugs upwards of twenty are named. When they laid birds or animals under contribution they treated them with great cruelty. Thus a love-charm was furnished by the hyena, but the portion required had to be taken from the animal while alive; the heart of the mole was to be swallowed while palpitating; the heart of the hen was to be applied while warm; the warty excrescences from the fore legs of animals cured

epilepsy; the long tooth of a black dog, extracted when alive, or a wasp tied to a man while living, was a cure for fever; portions of the chameleon were useful in certain cases, if chopped off during life; the tongue cut from a living fox was most efficacious; and teeth drawn from a young deer, while living, were famous cures.

In a selection of herbs for the use of the patient minute directions were given in order to secure the herb at its best. The modern feverfew had to be pulled from the earth with the left hand while the patient's name was spoken aloud, and the collector was warned not to look behind him while he drew forth the herb; some herbs had to be gathered with the right hand thrust through the left armhole of the coat; and one herb, the mandrake, had the power of moving from place to place when the herbman was looking for it.

Incantations were also made use of, some of which now seem ludicrous in the extreme. In order to staunch the flow of blood a man had to say, "Stupid on a mountain went, stupid, stupid was." To draw a bone from a man's throat the

physician had to insert his "medicinal" finger (ring finger) into the patient's mouth, and say, "I buss the Gorgon's mouth." Still more simple was the cure for a stomach ache, when the physician placed his hand on the man's belly and said, "Stolpus tumbled out of heaven." The simplest of all, however, was the direction for avoiding the stomach ache altogether by putting the left shoe on first.

When the Anglo-Saxons wanted to trace stolen or strayed cattle, they dropped burning wax into the hoof-marks, and pronounced certain words of pagan meaning. These practices were only slightly altered by the priests. Before the herbman went in search of the herbs that were wanted he was taught to kneel before the altar; and when the herb was found it had to be reverently placed beneath the altar for a fixed period before being used. The pagan incantation was changed for a sentence taken from Holy Writ, for a few "Aves" or "Paternosters," or for the names of some of the saints; and when the farmer wanted to recover his cattle, he

took a candle lighted from the altar, and sang a certain number of psalms over the footprints of his lost beast.

Bede was a firm believer in the common usages of the Saxon leech, and he held that certain individuals had the power of raising storms.

Amulets were also much favoured amongst the Saxons as specifics against diseases, and special virtues were supposed to be contained in red-and-white stones occasionally found in the brood nestlings of swallows.

The custom which now prevails of planting a bush of holly in a courtyard or a garden, dates from the Anglo-Saxons, when the holly was supposed to preserve the household from being bewitched.

Surgical operations were confined to the use of the lancet, and to splints; and a number of surgical remedies of a very rude character are preserved in the leech books.

An excellent conception of what Saxon leechdom comprised will be gathered from the following extracts :—

For Sleep.—Lay a wolf's head under the pillow, the unhealthy shall sleep.

For Foot Disease.—A new goat's cheese laid on relieveth the sore.

For Swollen Eyes.—Take a live crab, put his eyes out, and put him alive again into water, and put the eyes upon the neck of the man who hath need; he will soon be well.

For Jowl Pain.—Burn a swallow to dust, and mingle him with field bees' honey; give him that to eat frequently.

For Pain in the Maw.—Boil pitch in cow milk, remove the pitch, let him sip a little warm; soon the man will be well.

For Joint Pain.—Sing nine times this incantation thereon, and spit thy spittle on the joint: "Malignus obligavit: angelus curavit: dominus salvavit." It will soon be well with him.

In case a Man be Lunatic.—Take a skin of mereswine or porpoise, work it into a whip, swinge the man therewith, soon he will be well. Amen.

A Surgical Operation.—If a man's head pan, or skull, be seemingly iron-bound, lay the man with face upward, drive two stakes into the ground at the armpits, then lay a plank across over his feet, then strike on it thrice with a sledge beetle; the skull will come right soon.

Another Surgical Operation.—If a man's bowel be out, pound galluc, wring through a cloth into milk warm from the cow, wet thy hands therein, and put back the bowel into the man, sew up with silk; then boil him for nine mornings galluc, that is comfrey, except need be for a longer time; feed him with fresh hen's-flesh.

This "Leechdom" proves that the works of several eminent Greek physicians were known in

England, either in the original or in a Latin translation.

Amongst famous Saxon leeches mentioned in the work are Bald, Cild, Dun, and Oxa; and Bede mentions one Cynifrid, who opened a tumour for Atheldryth, queen and abbess, in A.D. 679, though without restoring her to health.

The practical study of anatomy was unknown to the Saxon leeches.

Alfred the Great was so impressed with the importance of cultivating a knowledge of medicine, that he sent an embassage to Helias, the Patriarch of Jerusalem, about A.D. 885, soliciting a few useful recipes, and those which were sent are recorded in the "Leechdom," where it is also mentioned that the drugs recommended by Helias were those commonly sold in the Syrian drug shops.

This work presents a curious survey of medicine in Anglo-Saxon times, but it has done nothing to advance our knowledge of diseases and their relief.

THE DARK AGES.

FOR a space of nearly eight hundred years, art, literature, and science can scarcely be said to have had any existence in the civilized world. This period stretched from the seventh to the fifteenth centuries. The hordes that fell upon the Roman empire were barbarians, and under their sway the higher characteristics of civilization disappeared. As the empire crumbled, neighbouring nations rose upon the prey, many petty states became great by what they absorbed, many new kingdoms arose, and during these centuries no kingdom or state found leisure to encourage learning. Still there were portions where the sciences were nursed, as in Arabia, and in some cities of Egypt, Greece, and Italy,

from whence, when the time came, the light of knowledge was once more to diffuse itself throughout the civilized globe. But learning found no patronage in rulers of states, or in the monarchs of kingdoms; war absorbed every other pursuit. A philosopher, or a scientist, who became distinguished, made himself the object of persecution. The advance that had been made in medicine quickly became debased, and the causes of disease were all referred to supernatural influences. These were only to be interpreted by astrology, and to be controlled by magic. But neither of these had their origin at this period; astrology and magic were the perverted forms of science and nature which had existed from the first beginnings of men. The astrologers and the magicians ultimately resorted to a kind of scientific method, which was afterwards termed alchemy, and this finally gave birth to the creation of chemistry, the most powerful adjunct of medicine that has ever been discovered. During the Dark Ages, the Christian religion grew to be a great controlling

power, not only in states, but with regard to learning, and at first the Romish Church fostered, and next opposed, the progress of scientific research.

Astrology, from the earliest ages, was associated with the art of the physician; and in the Dark Ages their alliance naturally became once more closely renewed. In Saxon times the leech was not considered of any account unless he was an astrologist as well. But it was not difficult to assume the knowledge. By studying the growth of medicinal herbs and plants, it was easy to associate the ripening of their virtues with phases of particular stars; hence certain plants were only to be gathered when a star was rising, or at its prime, or setting, or in conjunction with some other star, or in particular relation with the moon. The direct influence of a star upon that portion of the human body affected by a particular disease, which a selected herb cured, was not an unnatural assumption. Hence the principal stars were supposed to rule over a distinct part of the human

frame. This superstition continues amongst modern astrologers to the present day, and Southey, in 1834, in "The Doctor," describes an astrological picture common a century and a half before his time. The man's body was governed by zodiacal signs: Aries had alighted upon his head, Taurus was seated across the neck, the Gemini were astride a little below his right shoulder, the Lion was on the thorax, Capricornus regulated the knees, and Aquarius both legs. At the introduction of Christianity, saints were made to take the places of the stars; to St. Otilia was assigned the government of the head, St. Blasius the neck, St. Lawrence the back and shoulders, and Saints Burgarde, Rochus, Quirinus, and John had the control of the feet, shins, and knees assigned to them. Still, while prayer was made to the saints for cures, the stars were consulted as much as ever with regard to the probability of a return to health, and their government of the medical herbs was universally acknowledged. For many centuries after the priesthood, as a

class, had given up the study and practice of medicine, an acquaintance with the stars was regarded as an important element in the education of a physician.

The stars and the saints were alike injurious to the advance of medicine. By the succession of the saints to office, the priests, who were the only physicians, were enabled to retain a great hold upon the people, whose bodies and souls were thus in their keeping. The result was that the priests became wealthy by the gifts they received from rich patients, and the work of the Church was more and more neglected. Nor did this long escape the attention of the best friends of the Romish religion; and the Council of Laodicea, A.D. 366, forbade the priesthood from studying and practising astrology, or binding the soul by amulets. But this did not bring about the desired change. The priests were the most popular physicians; money was poured into their churches, and religion was impaired; so at the Lateran Council, held A.D. 1123, a decree was made, forbidding priests and monks from going

to the bedside of the sick other than as ministers of religion. This did not bring about the alteration which was wanted: and other decrees were made. In a council at Rheims, held A.D. 1131, monks were prohibited from frequenting schools of medicine, and they were directed to confine their practice to the limits of their own monastery.

At a Lateran Council which took place A.D. 1139, the monks and priests were threatened with the severest penalties, and suspension from ecclesiastical functions, if they followed the practice of medicine.

In 1163, Pope Alexander III. prohibited monks and priests from studying medicine and law, and those who did so were threatened with excommunication.

In 1215, Pope Innocent III. directed an anathema against surgery: no priest was to perform any operation where steel or fire were used, and the benediction was to be refused to all who practised surgery. These measures did not wholly effect a separation between medicine

and the Church, but it quickly followed upon a Bull being issued, permitting those priests who practised medicine to marry. Ever since that time the professed physician has been a layman.

A MEDIÆVAL SPIRIT.

MODERN MEDICINE.

ASTROLOGY AND MEDICINE—ALCHEMY AND CHEMISTRY—AMULETS, CHARMS, AND TALISMANS—WITCHCRAFT—MEDICINE UPON THE CONTINENT—HOSPITALS—APOTHECARIES AND GROCERS—SURGEONS AND SURGERY—MIDWIFERY—MEDICINE IN THE STATE PAPERS—QUACKS AND QUACKERY—MEDICINE IN OLD NEWSPAPERS—MEN WHO HAVE ADVANCED MEDICINE.

ASTROLOGY AND MEDICINE.

THE influence of the stars over cases of sickness continued to be accepted for several centuries after the Dark Ages had passed away. Chaucer, in his description of a physician, says—

> "With us there was a doctour of phisike;
> In al the world was thar non hym lyk
> To speke of phisike and of surgerye,
> For he was groundit in astronomie.
> He kept his pacient a ful gret del
> In hourys by his magyk naturel;
> Wel couth he fortunen the ascendent
> Of his ymagys for his pacient."

Fabian Withers, speaking of physicians, says, "So far are they distinct from the true knowledge of physic who are ignorant of astrology, that they

ought not rightly to be called physicians, but deceivers; for it hath been many times experimented and proved that that which many physicians could not cure or remedy with their greatest and strongest medicines, an astronomer hath brought to pass with one simple herb by observing the moving of the signs."

In a little book printed in 1664, and entitled "The Husbandman's Practice, or Prognostications for Ever," there is the following reference to this subject:—"Good to purge with electuaries, the moon in Cancer, with pills, the moon in Pisces, with potions, the moon in Virgo; good to take vomits, the moon in Taurus, Virgo, or the latter part of Sagittarius; to purge the head by sneezing, the moon being in Cancer, Leo, or Virgo; to stop fluxes and rheumes, the moon being in Taurus, Virgo, or Capricorne; to bathe when the moon is in Cancer, Libra, Aquarius, or Pisces." Other instructions followed, regulating by the sun, moon, and stars, every incident of every-day life, at home or abroad, in the country house or on the farm.

Modern science has happily relegated the heavenly bodies to their own great spheres; and these superstitions of past ages now sway the minds of a few ignorant people only.

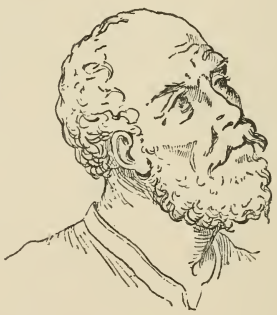
ALCHEMY AND CHEMISTRY.

THE arts of the magician and the sorcerer, and the use of amulets and charms, attained great celebrity in the Dark Ages, nor are they wholly rooted up at the present day. In modern witchcraft, magic and sorcery are united and debased; while amulets, the knowledge of their potency having been forgotten, now serve as adornments for the person, the household, the garden, or the field. The magician and the sorcerer meddled with medicine, but their triumphs belong rather to the recital of the marvellous than to a veritable history. It was not until both classes were united in the alchemist, the parent of immortal chemistry, that medicine falls under an obligation to them. Pursued at first from a love of riches,

alchemy gave its first fruits to medicine; yet many centuries elapsed before the enormous power which it discovered was fully recognized by the physician. During the Dark Ages alchemy was the *ignis fatuus* of the philosopher, luring him ever onward, urging further trial to compass an impossible achievement, and rewarding him occasionally with a discovery of far more vital consequence than that which the philosopher's stone was imagined to possess. Alchemy made many good chemists, a few physicians, and an enormous number of quacks.

Alchemists were of two classes—those who sought for a method of transmuting base metals into gold and silver, and those who wanted to find the elixir of life. After the Middle Ages had passed, the transmutors of metals were said to be searching for the philosopher's stone, which would, it was supposed, at a touch effect the transmutation of any metal, and change common pebbles into valuable gems; and those who sought the elixir of life, warned by the failure of all preceding alchemists, affected to be in search

only of a medicine that should cure all diseases. But with whatever object the alchemist worked, he was preparing for the students of nature appliances and rules by which chemistry ultimately came into existence. Alchemy was first practised by the Arabians towards the middle of the eighth century, and there resulted at once an enormous advantage to chemical knowledge. Abu Mussah Jaafer Al Sofi Geber has the credit



GEBER.

of having been the first to practise alchemy in Arabia; and to him and his followers the world is indebted for the discovery of the process of distillation, and the art of preparing extracts. The Arabians were also the first to introduce the use of sugar into pharmacy for the purpose of

medical uses. When the Arabs conquered Egypt alchemy found a congenial home amongst the learned Egyptians.

Five centuries before, in compliance with an edict issued by Diocletian, all the ancient books which treated of the transmutation of metals were burnt, and the science was abandoned; but the Arabians restored to Egypt what the Romans had taken away; and alchemy was nourished by her, to be in after years imparted to every civilized nation. Of those who pursued alchemy as a means of discovering the philosopher's stone there is no need to say much. They were for the most part ignorant adventurers who sought to profit by the credulity of weak-minded people; and the readiness with which monarch after monarch, in every kingdom of Europe, encouraged them in their pretended researches, is one of the most astounding phenomena of the Middle and still more recent ages.

Artephius, who flourished A.D. 1130, sought both for the philosopher's stone, and the elixir of life. He was a gross impostor, because he

professed by his wonderful medicine to have prolonged his own life for a thousand years. A work he wrote on the transmutation of metals was republished in France in 1612.

Albertus Magnus, Bishop of Ratisbon, who flourished about 1230, was another of the early alchemists whose name attained great celebrity; and so was Roger Bacon, the Franciscan friar, who became famous by his discovering the composition of gunpowder.

Raymond Lully, a native of Majorca, and born A.D. 1234, became very famous for his acquirements in alchemy and medicine. He was invited to England by Edward I., and was credited with having discovered not only the philosopher's stone, but the elixir of life. When he was eighty years of age he was stoned by some Mahommedans at Bougiah, and died on his voyage home, 1315.

Arnold, of Villeneuve, who flourished about the same time as Lully, became celebrated as an alchemist and a physician. He was accused of practising magic, and was persecuted by the Inquisition.

To the experiments of these and many other men of like genius during the Dark Ages, medicine owes the discovery of mercurial preparations, and the experiments with antimony which led to their use by the physicians in the fourteenth century.

Magic and sorcery also flourished during this period, and the most eminent magicians and sorcerers were also believed to be astrologers, alchemists, and physicians. The Church of Rome dealt with the professors of all these black arts, but was never able wholly to eradicate them, and at the present day they have their representatives in the vulgar conjurors and fortune-tellers.

Alchemy became increasingly popular as the Dark Ages passed away; and in England the Parliament of Henry IV., becoming alarmed lest the philosopher's stone should be discovered, and the king be able to do without supplies and the advice of his faithful Commons, passed an act declaring the multiplying of gold and silver to be felony.

There are, however, many circumstantial facts,

showing that the sovereigns of England would have poured high honours upon any one who had been fortunate enough to discover so useful a secret as that of changing baser metals into gold, or transforming ordinary pebbles into precious stones. Even learned men, who were excellent chemists, held the same pleasant belief. The State Papers show that even Queen Elizabeth, shrewd as she was, had hopes of learning the secret. In 1565 there was a rogue named Cornelius de Lannoy, *alias* De Alneto, who offered to produce fifty marks of pure gold for the queen, upon certain conditions. He obtained his conditions, and in July, 1566, was comfortably installed at the Tower. Every appliance belonging to the queen was at his service, but great delay took place. An inquiry was made from the Lieutenant of the Tower, and he reported that Lannoy confessed he had greatly abused the queen's confidence and begged for mercy. Lannoy was put into confinement, and the autumn of the same year petitioned the queen to be set at liberty, promising that he would without delay

put in operation his wonderful elixir for making gold. What was the precise order taken with regard to him is not known, but he must have been set at liberty about the close of the year. The only other reference to him occurs in Cecill's Diary, under date February 10, 1567, where it is recorded, "Cornelius de la Noye, an alchymist, wrought in Somerset House, and abused many in promising to convert any metal into gold."

The queen was not then cured of her belief in the possibility of compounding this elixir of gold; for in 1567 she carried on a long correspondence with a merchant at Lubeck, in whose house one Clement Ouldfield, an English alchemist, had died, leaving her three glass bottles containing three chemical mixtures by which gold could be produced. These bottles are described as "one of Sol, one of Luna, and the other of Mercury." Peterson proposed to hand these bottles over on payment of £500; and the cautious queen stipulated that she should see them first, and if within six months she thought proper to keep them, the money should be paid.

There is evidence to prove that the bottles were sent to England, and Peterson wrote several letters when the six months had elapsed, complaining that he had neither received the money nor had the bottles returned to him.

At this time there were some men of good position in the city of London who encouraged alchemy, because it enabled them to counterfeit the coins used in foreign countries where they traded. But these roguish alchemists are not to be confounded with those who honestly thought that by alchemical pursuits they could produce gold, or the elixir of life.

Paracelsus, who was born at Einsiedel, in Switzerland, in 1493, really rendered invaluable services to the progress of experimental chemistry, but he marred much of the honour that he would have had in his lifetime by his bombast. He was elected Professor of Medicine of Basle; and had the effrontery to burn in public the standard works of medicine then in use. He styled himself the Monarch of all Physicians, but his enemies called him King

of Quacks. Of him it is reported that he publicly declared the hair on the back of his head knew more than all other physicians put together; that the buckles of his shoes were more learned than Galen or Avicenna; and that his beard possessed more experience than all the Academy of Basle. Such a boaster had never been known before. He avowed that he had compounded the tincture of life, yet he afterwards died at the age of forty-eight in the hospital of St. Sebastian, at Saltzburg, in Germany, in 1541. Yet he greatly advanced chemical knowledge, and was the first to show how to apply chemistry to medicine. Tinctures, essences, and extracts by his teaching superseded the syrups, treacles, and decoctions previously in use.

MEDIÆVAL MIXTURES.

SIR WALTER RALEIGH claims remembrance for his "Great Cordial," which he compounded in the Garden House[1] of the Tower of London during his second and long imprisonment. This cordial acquired great fame, and excited the attention not only of learned physicians at home, but throughout Europe also. Henry IV. of France ordered Lefevre, his physician, to write a treatise upon it for the benefit of the French nation. In England no medicine became so famous as "Raleigh's Cordial,"—it was everywhere regarded as the great panacea for all diseases, and a large number of well-authenticated cures were really effected by its use. Queen Anne (wife of James I.)

[1] Now No. 8, Parade Square, inhabited by a Warder.

declared that it saved her from death upon one occasion; and when Prince Henry was taken ill, she insisted that he should take doses of it; but the physicians were tardy, and the cordial failed to save the Prince's life. Notwithstanding this, the queen never lost faith in "Raleigh's Cordial," but administered it herself to her son Charles (afterwards the first king of that name), and he so imbued those about him with his praise of its healing virtues, that Charles II. would take no other medicine. This cordial was the result of experiments made by Raleigh, extending over many years; and though he made known many others for specific ailments, the composition of the "Great Cordial" only has been preserved in medical works to the present time. The late Mr. Hepworth Dixon says[1] it was "a blending of pearl, musk, hartshorn, bezoar stone, mint, borrage, gentian, mace, red rose, aloes, sugar, sassafras, spirits of wine, with twenty other things." Whatever virtue there was in it can now be obtained from fewer sources; but Raleigh had to

[1] *Her Majesty's Tower.*

discover for himself the power of everything he used. His devotion to chemical pursuits while in the Tower is a proof of his remarkable genius.

He was imprisoned on a charge of conspiring to raise Arabella Stuart to the throne, which was utterly unfounded; and he was, in reality, the victim of Spanish intrigues. Philip III. saw in Raleigh a constant menace to the designs of Spain. He had taken part with the Dutch against the Spaniards; he discovered that portion of America which he named Virginia in honour of his royal mistress, Queen Elizabeth, and he founded there a Free State; he took an active part in attacking the Spanish Armada; he conducted an expedition to Guiana, to the great terror of Spain; and he acted as admiral in the expedition against Cadiz. The death of Elizabeth brought about the opportunity for which Spain waited. James I. wanted peace; his ministers were receiving bribes from Philip III. Raleigh was rich, powerful, the envy of many about court, and his enemies triumphed over him. On July 12, 1603, he was sent to the

Bloody Tower; in the same year he was tried and condemned to death, but James did not dare to carry out the sentence, and he languished for thirteen years a prisoner. His dungeon in the Bloody Tower[1] was too damp for him; he fell ill, and petitioned the king for a better lodging. As there was in the garden below a fowl-house, made of laths and plaster, built against the wall, he was removed thither, where his health was soon restored; and after a long fret against his confinement, he devoted himself with all the great power of his genius to study; abstract sciences, chemistry, history, navigation, politics, and warfare, filled up his leisure hours, and Raleigh's name and fame became great in the nation. His political advice took the ears of all the people; his discoveries won for him renown amongst scientific men throughout Europe, while his cordials and medicines wrought marvellous benefits amongst all classes. In the "Garden House" he constructed a furnace, with still, retort, and receiver; the shelves were occupied with

[1] Then called "Garden Tower."

bottles containing the essences of countless herbs. "These phials of his," said Sir Thomas Wilson, "contain all the spirits in the world except the Spirit of God." These spirits were the first fruits of his study and labour; the next step was the discovery of new medicines. The "Great Cordial" was compounded by Raleigh after three or four years had passed in experiments; and it was preceded by his "Guiana Cordial," of the composition of which nothing is now known. Of other discoveries of his, such as the distillation of fresh water from salt water; of the visitors who came to solicit a sick potion; of the crowds who thronged the quay to see him walk along the top of the wall to dinner, we have no space to write.

Although the virtues of the "Great Cordial" have long since been superseded by better and simpler compounds, Raleigh's genius in producing it is worthy of record; and a glance at his friends in the Tower will be of interest.

In 1605 there was brought to the Martin Tower, Henry Percy, ninth Earl of Northumberland, who was doomed to outstay Raleigh as a

prisoner. He was a nobleman of great scientific attainments. Of kindred tastes with Raleigh, they were permitted to see each other frequently; and the Earl sat for hours at a time in the little Garden House, watching Raleigh conducting his experiments. Three friends of the "Wizard Earl," as he was called, also frequently accompanied him; these were called his Magi. They were Heriot the astronomer, and Warner and Hues the mathematicians. Heriot was the first man in Europe to see the satellites of Jupiter, and he noted the spots on the sun's surface before Galileo saw them. The Magi came and went as they chose, so that the Earl and Raleigh were kept well informed of political and court changes; and when they grew tired of the gossip of the day, they had the discoveries of Raleigh, the mathematical researches of the Wizard Earl and two of the Magi, and the observations of Heriot, to occupy their thoughts. Nor were the soothing and softening influences of good women and of beautiful children absent from the Garden House; for Bessie Raleigh lived in the Tower, with Wat,

their eldest son (he who afterwards was killed at Guiana under his father's eye), and Carew, her second son, was born there. The Countess of Northumberland, too, who could not agree with her husband at Sion House or Petworth Castle, shared his imprisonment in the Tower without regret, bringing their children with her,—Algernon, who became the tenth Earl of Northumberland; Henry, who became Lord Percy of Alnwick; Dorothy, who became the mother of Algernon Sydney; and Lucy, afterwards the friend of Strafford and of Pym, and the heroine of scores of love verses. So, with the laughter of beautiful children ringing in his ears, and the love of a faithful wife ever cheering him, Raleigh worked in his Garden House with his still and his pen; talked with his imprisoned friends of new discoveries in the heavens; distributed his cordials far and wide; encouraged the foundations of Free States in far distant lands, and added greatly to his own reputation and to the honour of the land which gave him birth.

The discoveries made by the alchemists were

of too valuable a character to cause the work of the alchemist to be lightly spoken of. Men laugh at the mad folly which led them to devote their lives to the search after the philosopher's stone; but there were not a few who, after Paracelsus, devoted their whole energies to the discovery of chemical compounds, to be used alone in medicine. Medical chemistry may be said to have been founded in 1450; yet it is a singular fact that, owing to the prejudice existing against the alchemists, chemistry was not elevated into the branches of natural science until 1775. From that period her progress has been rapid and continuous.

AMULETS, CHARMS, AND TALISMANS.

THE use of amulets and charms in cases of sickness, and to ward off diseases, became very popular during the Middle Ages, and retained a positive value among physicians down to the seventeenth century. Even at the present day many amulets and charms are still made use of, in exactly the same way that they were upwards of a thousand years ago, but for very different purposes from those for which they were originally designed.

An amulet, when once obtained, was tied on to the particular part which was affected by disease, and not removed until a cure was effected. In a case of ague it was tied to the arm; for rheumatism in the legs the amulet was fastened

to the thighs; for affections of the chest, throat, neck, or head, it was suspended from the neck.

Amulets were of infinite variety. They consisted of bits of bones from birds, animals, or human beings; much virtue was associated with teeth taken from deer, dogs, foxes, or wolves; roots of herbs were frequently used; leaves of certain trees were often rolled into balls and worn; for all pains of the head a certain cure was to wear a rope with which a man had been hanged; and a cure for colic was to carry about a red or white stone taken from the broodling nest of a swallow.

After the death of Mary Queen of Scots, an inventory was taken of her goods, which is now in the Public Record Office, and one article found was a small gold-stoppered glass bottle containing a white stone.

Another cure for ague was to wear three spiders suspended round the neck. Elias Ashmole, in the year 1681, records the following in his diary: "April 11. I took early in the morning a good dose of Elixir, and hung three spiders

about my neck, and they drove my ague away. Deo Gratias!" Great reliance was also placed in the efficacy of letters, words, or signs written on parchment or paper, which were rolled up and tied to the person. These amulets were recommended by so-called learned men so late as the seventeenth century.

Charms differed from amulets in that it was not necessary to wear them constantly, and their virtue was not lost if they were only carried occasionally. A bit of red coral was a charm against fits, and this belief was the origin of hanging round a child's neck the coral chain. Coral was also supposed to have the power of charming away evil spirits, so that small pieces were carried by men; and when adornments came to be worn, a bit of coral found an honoured place in the sleeve, or attached to a button. The holly also was endowed with a double charm, keeping off disease and evil spirits; and this led to its being planted in the gardens or yards of houses, where it retains a place to the present day on account of ancient usage and personal beauty.

Illustrations might easily be multiplied, but these must suffice. The use of amulets and charms caused a ready belief in the power of relics. The Church was too wise to uproot the popular faith; she adopted the symbols and sanctified them. In the same way the droning of unintelligible words over wounds, or over the tracks of lost cattle, was changed for the singing of a psalm or the utterance of a Paternoster. In the gay time of Pepys even, there was a strong belief in the power of charms; and in his Diary he gives the following form of words as a cure for a burn :—

"There came three Angels out of the East,
The one brought fire, the other brought frost;
Out fire! in frost!
In the name of the Father, and Son, and Holy Ghost.
Amen."

Talismans consisted of bits of parchment or paper, and pieces of metal or glass, with words written or engraved upon them. They differ from amulets because they may be deposited in any place without losing their efficacy; the amulet, on the contrary, must always be worn about the body. Talismans were of two kinds,

astrological or magical. Hebrew characters were very commonly used, and so were the Hebrew numerals. The word Abraxas was very popular, because it was supposed to denote a power which ruled over three hundred and sixty-five other powers; Abracadabra was another word very much worn as a cure for ague and other diseases.

WITCHCRAFT.

ANOTHER product of the Dark Ages was witchcraft. When doctors became scarce, woman sought the healing herbs of the field, and did her utmost to mitigate the sufferings of her friends and neighbours. But the Church denounced this innovation, and though she had divorced the physician from the priest, she denounced the woman healer as a witch, and singled her out for the most exquisite tortures. The cry was soon heard from one end of the Continent to the other. A "witch-finder" became a profession, and in tolerant Germany, enlightened France, and free England, thousands of poor women and young children, the old, the lame, the blind, the girl of fifteen and the boy of fourteen, were murdered because they were supposed

to be witches. It is no part of our purpose to recite stories of the cruelties practised upon these poor creatures; we simply mention the fact, and pass on to record the numbers supposed to have been put to death in the first half of the fifteenth century—at Treves, 7000; Bamberg, 1500; and Wurtzberg, 800. By the beginning of the sixteenth century, the mania for witch-hunting had reached Geneva, and 500 were put to death in three months, 1000 perished by fire in the diocese of Como in 1524, 900 were burnt in Lorraine. When this fearful mania reached England, it ravaged the homes of the poor and helpless for nearly two centuries; and it has been estimated that 30,000 unhappy creatures perished before the folly and wickedness of such proceedings dawned upon the people. Scotland, in like manner, was affected, and thousands of lives were taken; while at Salem, New England, nineteen persons were hanged for witchcraft in 1692.

MEDICINE UPON THE CONTINENT.

IN the age of Alfred, medicine was studied on the continent in all the religious houses, and the most celebrated physicians held abbacies and bishoprics. It was considered a science specially adapted to the study of nuns; and after the time of Charlemagne, greater facilities were furnished for the study of the science at all the religious houses than had prevailed before. There seemed to have dawned a very promising era on the world, but the pagan hordes, sweeping out of the north with resistless fury, succeeded at last in settling down upon the most promising provinces of Northern Europe, and the gloom of the Dark Ages thickened over the fairest portion of the world.

The Arabs in Asia, Africa, and Spain en-

couraged all the sciences, medicine amongst the number, during this period. Gario Pontus, the Greek physician, founded at Salerno, in the south of Italy, a medical school, which rose to high celebrity and maintained that reputation from the eighth to the thirteenth centuries; and the old Greek spirit and culture lingered in a few other towns of Italy. Constantine, of Carthage, was one of the professors at Salerno about 1050. He travelled through Egypt, Ethiopia, Arabia, Persia, and India, studying the sciences, and was the most learned man of his age. In 1087, Constantine died a monk.

Between the eleventh and the fourteenth centuries the cathedral schools all over the world advanced rapidly in importance, and successive Popes granted them the charters of universities. The cultivation of the sciences was sedulously adopted, and in the teaching of medicine the Greek and Arabian books were adopted as the basis of instruction. At this period the power of the priest was supreme; and attempts made to obtain greater religious freedom led to the creation

and infliction of the Inquisition. To this period belong Albertus Magnus, a prelate high in favour at Rome, and Roger Bacon, a poor Franciscan priest. Mondini, Professor of Medicine at Bologne, A.D. 1316, resumed the public teaching of practical anatomy; and Arnold de Villeneuve discovered alcohol. One of the most learned physicians in the middle of the thirteenth century was Chanliac, who acquired Greek and Arabic, and summarised in his writings all the medical knowledge of the age.

The severe repressive measures adopted by Rome towards all those who aspired to push discovery into the domain of science, led to a general cessation of all efforts; and, lacking advance, there followed a decline of science which continued for nearly a century.

During this decay in literature, commerce was preparing for greater achievements than the world had ever before known. Flourishing cities had grown up on the coast line of every kingdom, wealth began to accumulate, and men longed for greater freedom of thought and more indepen-

dence. The corporate bodies everywhere were trying to attract to their cities and towns men of eminence in science and literature, but the supply was scanty. Constantinople was full of learned men, but they were not to be tempted from the city. War, however, accomplished what money had failed to obtain. Constantinople was captured by the Turks in 1453, her colleges and schools were closed, and her learned men driven out of the city. Her learned teachers had ample choice; all the cities of Italy issued invitations to the refugees; and wherever they settled there sprang up schools of learning, in which the old Greek philosophy found a new home, and made fresh incursions. Students flocked to Italy from all parts of Europe, and learning found a lasting basis for revivals. At this time the greatest discovery in aid of all scientific study was made; and learned men recognized in paper and type the mightiest power ever invented for the spread of knowledge. Rags and lead had served long enough the ambitious purposes of man, and, for the future, by a slight transformation, they were

destined to fulfil the noblest offices of God. Printing was invented just in time; the old philosophical books were rapidly perishing, every year they were becoming more scarce; the monks cared little to copy any but devotional writings, and to this timely discovery we owe the preservation of such works as, by their genius and truth, had survived until that time. The impetus which printing gave to study, and the advantages which it conferred upon all the arts and sciences cannot be over estimated: they were prodigious. Acquaintance with one or two languages served a learned man henceforth, whereas formerly he had to acquire the tongue of every country in which he studied. A student now began at twenty to study things which he could not have touched before his fortieth year previously. Printing shortened study by many years; and all the sciences advanced with huge strides instead of the slow steps which had formerly characterized their progress. This was necessary in order to overcome the force that was about to be opposed to them, which grew up in Rome, and was per-

sonified by the Pope. Religion regarded science as an adversary, and sought to repress the growth of knowledge. But science had enlarged men's minds, men longed to be freed from the fetters imposed by faith, and the era of conflicts began, ending in Reformation. First in Italy, and afterwards in Germany, the clergy were opposed by the laity; and from the day that Luther nailed his theses to the church door of Wittemberg the supremacy of the priests declined. Science was found not only to be in accord with revealed truth, but to be the surest foundation on which to build the prosperity of a nation. Schools and universities were multiplied throughout Europe; the middle classes and even the poor sought eagerly to share in the advantages of education. The Reformation, which opened the doors of knowledge to all classes, established equal rights for all men before God and the law; and to the reformed nations medicine fled as to havens of security which no other countries in the world possessed.

Confining our attention almost exclusively to

the progress of medicine in England, it must be borne in mind that in the middle of the fifteenth century no medical school existed in this country. At that time, the only medical practitioners were illiterate monks, who studied theology and medicine together, and practised the latter under a licence granted by a bishop. Their system was not much in advance of Saxon leechdom, and in many cases, particularly where superstitious rites and incantations were made use of, it was very much inferior to the honest herb-practice of the leech.

HOSPITALS.

THE hospital is as old as the practice of medicine by the priests of Egypt, though the buildings in which the sick lay were not known by that name. Those suffering from serious maladies were received by the priests into the medical temples, and there received personal attention. Each day the priest examined his patients, and gave the youthful probationers who attended him clinical instruction—such as it was. This course was also pursued in Greece and at Rome. A record was also kept on a metal tablet of each case, the disease, and the treatment; these, when they had accumulated, served the priests as a basis on which to apportion distinct treatment to each disease. Bethesda, in Jerusalem, comes within

the designation of a public hospital. These institutions became commonly known in the first centuries of the Christian era. One at Cæsarea, in A.D. 370, was richly endowed, and of immense

THE POOL OF BETHESDA.

dimensions. Next in celebrity was the hospital of Chrysostom at Constantinople. There were twenty hospitals in Rome alone in the ninth century, though some of them may have been more of a philanthropical than a wholly medical character. In Greece, all the temples devoted to medicine were hospitals as well. Haroun-al-Raschid V., Caliph of Bagdad, attached to each

college in that city a spacious hospital. Wherever the Christian missionaries of Rome penetrated and established a monastery or a nunnery, there they also planted a hospital. In this way the hospital soon became known all over Europe. Of the London hospitals, St. Bartholomew was founded by Rahere in 1546; Bethlehem was founded in 1547; St. Thomas's in 1553; and the Small-Pox Hospital in 1746. Of others it is needless to speak.

APOTHECARIES AND GROCERS.

IN Biblical times the merchants who imported spices, carried also balm for hurts, and herbs for medicine, and this connection between drugs and groceries continued until the rise of the Greek school of medicine. The practice of Greece was followed and improved in Rome; and the apothecaries performed distinct and important functions until the Dark Ages came. Grecian and Roman physicians dispensed their own medicines. As the materia medica of these days consisted almost wholly of herbs, the physician employed others to collect them, and in this employment a large number of people were engaged. The herbs which grew in distant places were collected in like manner by poor people, and forwarded to the cities, and in this

way there gradually grew up a distinct trade in herbs. In the course of time, the dealers in herbs began to compound medicines for their own sale, and laws were made regulating the trade. If any herb-dealer sold poison, even by mistake, he was severely punished; herbs or prepared medicine for cattle were to be sold only by one class, others sold spices as well as herbs, while not a few confined themselves to the sale of prepared medicines. The African physicians are supposed to have been the first to give up compounding their own medicines; and in the eleventh century this became the general practice. Then there appeared the apothecary's shops, which in all large cities were open to the inspection of the physician, where medicines were kept in stock, made up from a list of legally authorized prescriptions. The book of receipts most commonly used was called the Antidolarium; and it contained amongst many others prescriptions of Galen, Avicenna, Actuarius, and Mesue, the Arabian physician. When apothecaries' shops were first introduced into the cities of

Europe, they were established at the expense of the public, and were the property of the magistrates. Their increase was forbidden without a special order, which was rarely granted. The first mention of an apothecary in England was in the year 1545, when a London apothecary attended Edward III. in an illness he had while in Scotland. The apothecaries were united with the grocers as a company in 1345, and it was not until 1617 that they were separated, and made a distinct company. Several references to this appear in the section "Medicine in the State Papers." The earliest pharmacopœia published in England was in 1618.

SURGEONS AND SURGERY.

THE practice of surgery is coeval with the association of men in families; and probably the first exercise of healing was in the form of what would be now termed a surgical operation. Throughout the Hebrew and Egyptian periods there was no distinction made between the work of the surgeon and the physician; and in the first century of the Christian era, a Sanscrit medical writer laid it down, that it was only by "the association of medicine with surgery" that the perfect physician was formed. There is no doubt that the two professions were united in the same individual, until the growth of nations, and the prevalence of wars, brought the work of the surgeon into prominence. Homer endows his heroes at the

siege of Troy with a knowledge of medicine and practical surgery. In the Iliad we read that Eurypylus, when wounded with an arrow, thus addressed Patroclus :—

> "But thou, Patroclus, act a friendly part,
> Send to my ships, and draw this deadly dart.
> With lukewarm water wash this gore away,
> With healing balm the raging smart allay.
> Such as sage Chiron, sire of pharmacy,
> Once taught Achilles, and Achilles thee."

When also Menelaus was wounded in the side by an arrow, Machaon, the son of the Grecian Æsculapius, after washing the wound and soaking out the blood, applied a dressing to appease the pain, of the juice of roots bruised, the principal remedy then known.

> "Then sucked the blood, and sovereign balm infused,
> Which Chiron gave, and Æsculapius used."

The true history of surgery commenced with Hippocrates; as it is known that he reduced dislocations and set fractures. He also knew how to produce counter irritation and the actual cautery. What were the earliest forms of instruments used in surgical cases are not known.

The tombs and mummies of Egypt have never yielded one surgical instrument. Hippocrates mentions the ambe, which he used for reducing dislocated bones, and that is the earliest instrument with which we are acquainted. He also made use of a small trepan, a saw with a circular motion, and a jagged saw. In the first century before Christ, Asclepiades performed the operation of laryngotomy; and Autyllus left on record directions for a timid operator. Celsus, A.D. 15, taught a mode of cutting for the stone, which operation was practised by Ammonios and Philagnos. Archigenes, at the end of the first century, declared that the Greek physicians knew how to tie an artery. Complete sets of surgical instruments have been recovered from the ruins of Herculaneum and Pompeii. There were eighty-nine specimens of pincers, several varieties of probes, hooks to the number of fourteen, a trident for cauterising, a silver lancet, a spoon, cupping vessels, and eight steel or iron knives for various surgical purposes. There was also an instrument for tapping the dropsical, which has been described

by Celsus and Paulus Ægineta. No alteration was made in the form of this instrument until the middle of the seventeenth century. The employment of splints for broken limbs was practised by the Saxons. The Arab surgeons are distinguished for their cruel use of fire in their practice. In the wars of the Middle Ages the wounded in battle fared very badly; their sole attendants being the priests selected to accompany the armies, chiefly because of their medical knowledge. Beckmann states that one, Nicholas Colnet, acted as field-surgeon with the English army in France, under Henry V. in 1415. He was bound to furnish three archers as an escort, and was allowed £40 a year, and twelve pennies a day subsistence money, while each of his archers received £20 a year, and six pennies a day. The chief surgeon was one Morstede, who had to equip fifteen men, three as archers and twelve as surgeons. His salary was £40 a year, and twelve pennies a day; while his archers and assistant surgeons had £20 a year and six pennies a day. Both Colnet and Morstede had a share of prisoners and plunder.

Similar arrangements prevailed amongst all the continental nations, differing only in slight details. In England, the surgeons about the thirteenth century practised such low occupations as drawing teeth, blood letting, and shaving. They were made into a company by the name of "The Barber Surgeons," in 1308, and raised into a corporation in 1460; and when Edward IV. died, "at the request of the Freemen of the Mystery of Barbers of the City of London using the mystery or faculty of surgeons, grant was made to them that the said mystery, and all the men of the same mystery of the said city, should be one body and perpetual community." In 1512, an act was passed to prevent any besides barbers practising surgery within the City of London and seven miles round, excepting such as had been examined by the Bishop or Dean of St. Paul's Cathedral. This connection was partially severed in 1540, by Henry VIII., when an act was passed which provided "that no person using any shaving or barbery in London, shall occupy any surgery, letting of blood or other matter, except only draw-

ing of teeth." The connection between the two was continued until 1745, and then they were wholly separated. Until this separation had been partially effected, the surgeon was regarded as occupying a scientific position very much inferior to that of the physician, who decided when it was necessary to call in the services of the surgeon, and what surgeon should be employed. The physicians at that time took apothecaries with them when they visited rich patients; and they exercised the right to compound their own medicines if they thought proper.

MIDWIFERY,

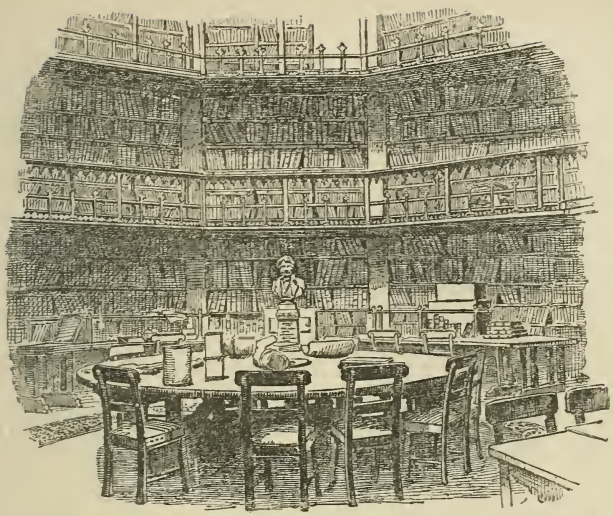
FROM the earliest ages of the world down to the sixteenth century, was in the hands of women. The earliest reference in history to a difficult operation in midwifery was one in which a midwife was engaged. In Egypt, Greece, Rome, Eastern and Western Europe, in England and in France, women were invariably agents in midwifery cases. About the time of the institution of the Royal College of Physicians in London, 1518, midwifery began to be practised by physicians, and Dr. Harvey is known to have attended cases in 1603. At a very early period in England, midwives were authorized by the bishops, under certain

circumstances, to baptize infants at their birth, and this practice only ceased in consequence

BIRTH OF RICHARD BEAUCHAMP, EARL OF WARWICK, 1381.

of the opposition of the Puritans. The *sage femme* of Marie di Medicis published in 1609

a collection of obstetrical observations, and, in 1668, a formal treatise by Francis Mauriceau, *chef accoucheur* to the Hotel Dieu, in Paris, laid a stable foundation for the science and art.



SEARCH ROOM AT PUBLIC RECORD OFFICE. BUST OF FIRST LORD ROMILLY.

MEDICINE IN THE STATE PAPERS.

THESE fugitive ana are the siftings of the calendars of State Papers, published under the direction of the Master of the Rolls, chiefly, but not exclusively, relating to apothecaries, surgeons, and physicians holding appointments in the households of Henry VII., Henry VIII., to 1524; Queen Elizabeth from 1562, James I., Charles I., the Protectorate, from 1649 to 1654; and Charles II.,

from 1660 to 1667. The period between 1524 and 1562, and the years of the Commonwealth, have not yet been completed.

Entries relating to the same subject follow one another.

A Royal Practitioner.

In the Preface to the accounts of the Lord High Treasurer of Scotland, 1475–1498, it is recorded that James IV. took much interest in surgical operations, and had the repute of possessing considerable medical knowledge, and some dexterity as a surgeon. On one occasion, when in the neighbourhood of Cupar Angus, he visited a man "new schorne of the staine," an operation seldom attempted at that time. Occasionally the king bribed his servants to permit him to perform on them such simple operations as blood-letting and drawing of teeth. Thus, there is a payment to Domynico "to gif the king leve to lat him blood." In May 1491, "a leyche that leyt the king blud" received eighteen shillings for his fee.

HENRY VII.

1485, Sept. 28.—Frutze. Benedict, grant for life to the office of King's Physician, with a salary of £40 a year; also grant for life of the keepership of the place called "le Prince Wardrobe."

1486, Dec. 15.—Lanister. Walter, the King's Physician, annuity of £40 by the hands of his wife.

1487, July 10.—Altoftes. William, of Atherston, principal surgeon for the King's body.

HENRY VIII.

1510, March 23.—Veyrery. John, King's Chief Surgeon, forty marks.

1510, Sept. 13.—More. Marcellus de la, the King's Surgeon, annuity of forty marks during pleasure.

1513, August 6.—More. Marcellus de la, to be Serjeant of the King's Surgeons, with wages and precedence, as customary since the reign of Edward IV.

1510, Dec. 4.—Fabyan. Thos., Veterinary Surgeon for the King's Horses, during good conduct twelve pence a day. Paid out of subsidies in the port of London.

1510, Dec. 7.—Bubham. Richard, King's Apothecary, annuity of £10.

1514.—Surgeon's pay in the Field, 8*d.* a day, same as an archer.

1514, May 16.—Browning. Henry, protection for, appointed to serve in the war. Given to M. de la More.

1514, June 16.—Wages of a Surgeon sixpence a day.

1514.—According to the law of arms Surgeons were "unharnessed" in the Field.

1519, March 10.—Vernando. Dr., Physician to Catharine of Arragon, consort of Henry VIII., received half a year's salary, £33 6*s.* 8*d.*

Surgery a Handicraft.

1519, Nov. 7.—Roos. Thomas, of London, Surgeon, bound over not to molest Balthazar de Guercius, or pursue an information late put into the King's Exchequer, till he proves that surgery is a handicraft. Roos attempts to prove this by authority of Chiron at the siege of Troy. Goes on to say, "It rests princi-

pally in the manual application of medicine, as in stanchying of blod, serchying of wounds with irons and with other instruments, in cuttying of the sculle in due proporcyon to the pellicules of the brayne with instruments of iron, cowchyng of catharacts, takyng out bonys, singing of the flesshe, launchying of bocchis, cuttyng of apestumes, burnyng of cankers and other lyke, settyng in of joynts and bynding of them with ligatures, lettying of blod, drawyng of tethe with such other like, which restyth onely in manuall operation, princypally with the hands of the workman," and this fellow wanted to remain against law or license, etc.

1522, March 16.—Guercius. Balthazar de, denization for, a native of Italy, and Surgeon to Queen Catherine.

1523, April 18.—Incorporation of the Physicians of London.

1524, May 6.—Smyth. Roger, licence for, citizen and grocer of London, to practise physic and surgery in all parts of the realm.

A Cellarer's Recipes.

In a manuscript account of the Cellarer of the Abbey of Bardney, in Lincolnshire, 1528–1532, are the following curious recipes :—

A Medicine for the Axes [Aches].—Take the juice of camomile, or else the juice of wormwood, and a quantity of sugar and good ale, and drink nine days, and the Patient shall be whole by the grace of God.

For Stawynshyng of Blood.—Take the powder of a frog roasted and dried; or else the wool of a hare chopped small;

etiam deponantur testiculi in aqua frigida; or cleave a hen in two, and lay her hot to the wound, and it will staunch.

For a Blow.—Take a little cummin and dry wormwood, and seethe them in white wine or claret, and with a linen cloth dip therein, and it will soak out the blood.

For the Same.—Take a little beef, hot when it is killed, and lay to it twice or thrice.

QUEEN ELIZABETH.

1562, November.—Mary, Queen of Scots, informs Queen Elizabeth that Dr. Fernel, the Physician who gave her a wash for small-pox, is dead.

1565, May 22.—Barrowghs. Mr., his licence to practise physic was against the statutes of the University.

1568, Jan. 11.—Grey. Lady Catherine, ill, wants Dr. Symonds to visit her.

1569, June.—Francis. Dr., had access to Mary Queen of Scots in her illness.

1569, June.—Francis. Dr. Thomas, wrote to Sir Thomas Cecil respecting the health of Lord Shrewsbury. He travelled to Chatsworth in an open litter, drank a quart of metheglen, and then, "loquaci delirio laborabit."

1570, Feb. 6.—Vavasour. Dr., and Lee, Dr., alleged Papists, two Doctors of Physic.

1575, May.—Wymes. Humphrey, Apothecary. A receipt for certain drugs, to the French Ambassador's man, and to Dr. Good.

1575, May.—Good. Dr. James, confined in the Tower, was examined about some stuff sent to the Scottish Queen for her health, which was paid for by the French Ambassador.

1581.—Goodoums. William, Serjeant Surgeon, 40 marks a year.

1583, Oct.—Ambrose, Earl of Warwick, to the Masters of Requests. Shows that Edward Skeels was the Earl's Surgeon, and he was involved in a trial with Edward Owen, supports the interests of Skeels.

1584, June.—Cabry sent as a present to Secretary Walsingham, two boxes of "treacle of *Cairo*."

1611.—Goodoums. William, warrant to pay his Majesty's Serjeant Surgeon 500 marks for his house adjoining Somerset House, bought for improving the gallery there.

1611.—Baker. George, one of Her Majesty's Surgeons.

Dr. Roger Lopez.

[Roger Lopez, a Portuguese Jew, served in the Spanish Armada, was captured by the English, and made Physician to Queen Elizabeth.]

1589, July 12.—Lopez. Dr. Ruy, to [Sir Francis] Walsyngham. His suit for a licence to import aniseed and sumach for thirty-one years has been denied. Has served Her Majesty for the space of three years. Desires relief in his present necessity.

1592.—Lopez. Dr. Roger, or Ruy, Portuguese Jew, Physician to Queen Elizabeth.

1593, July 3.—Robert Zinzan to Lord Burghley: wants to be made Surveyor of Refiners of Sugar; and states that others have had grants, like Dr. Lopez for aniseed.

1594.—Lopez. Old Dr., is in the Tower, for intelligence with the King of Spain.

1594.—Lopez. Dr., heads of the indictment against him: He conspired the death of the Queen in 1590. Nov.

1591, treacherously accepted a jewel from the King of Spain. Undertook to poison the Queen, Feb. 20, 1593. Undertook to kill the Queen for 50,000 crowns, to be paid by the King of Spain, 30th Sept., 1593.

1594, Feb. 28.—Summary of indictment against Dr. Lopez: "Cursed Bull of Pius V., the cause of all the Queen's troubles. The Pope attempted to turn the navy, to seduce the nobility, and to poison the Queen. Lopez, a Jewish Doctor, permitted often access to her person. He was waiting for a portion of the money to come, when he would have attempted it." All these charges were proved to the great satisfaction of the judge, jury, and hearers, and by confession of Lopez himself.

1594, Feb. 28.—Lopez was tried at the Guildhall before the Lord Mayor, Robert, Earl of Essex, and others. Convicted and attainted.

1594, March 14.—Lopez has kept his bed [in the Tower] since his trial.

1594, April 14.—Licence to Robert Alexander, and Richard Mompesson, two esquires of the Stables, of the sole bringing in of Aniseed and Sumack, paying the ordinary customs.

[Lopez was hanged at Tyburn, June 7, 1594].

1590, June 28.—Bailie. Dr., one of Her Majesty's Physicians in Ordinary.

1594, Jan. 2.—Cranedge. Harry, a Physician captured at a house where a mass was preparing for the priest. The priest escaped.

1594, Feb. 16.—Pischerus. Dr. Michael, Physician to the Marquis of Brandenburg.

JAMES I.

1603, October 1.—Grant by Queen Anne of the keepership of Somerset House in the Strand, with all orchards, walks, and gardens; reserving to John Gerard, of London, surgeon and herbalist, the garden plot formerly leased to him.

1605, Jan. 25.—Grant to the Company of Barbers and Surgeons of London, a new Charter and confirmation of their ancient lands and liberties. No butcher, tailor, etc., to embalm dead bodies, but only Chirurgeons.

GEORGE SHEIRES.

1605, Sept. 8.—Sheires. George, warrant to pay him as one of the King's Apothecaries, and his servitor of odoriferous things, all sums due for physic, delivered by him for Prince Henry, Charles, Duke of York, and other the King's children.

CHARLES I.

1625, Nov. 2.—Sheires. George, to be paid not more than £60 per annum for "physical provisions" for the King's poor servants.

1626, Aug. 13.—Sheires. Mr., Apothecary to the King.

JAMES I.

1608, Dec.—Mary, widow of Lewis Lamyre, his Majesty's Apothecary. Her husband lost an estate in the King's service worth £5000, and died £1600 in debt. Has nothing, and her husband not buried.

THE APOTHECARIES' COMPANY.

1611.—Notice relative to the losses sustained by the Company of Grocers on account of the separation of the Apothecaries from them.

1611.—James I. to the Lord Mayor of London. Having recently granted a Charter to the Apothecaries to become a Company, for the sake of avoiding the abuse of unskilful persons, he understands that they refuse to enrol the Charter. Orders their immediate conformity, and the establishment of the Company "in the free practice of Government."

1617, Dec.—Requests to be made by the Recorder of London to the King, on behalf of the Grocers' Company, and of those Apothecaries who still remain with them, that he would reunite the companies by a new Charter, with authority to reform abuses, or at least would not compel all Apothecaries to separate from the Grocers, and join the new Company. That [in asking this they were not actuated] by the inconvenience of the new Charter so much as the disabling of an ancient Corporation, giving foreign Apothecaries the same licence as English, and begetting confusion in other companies.

1612.—Craig. Dr., Physician to the King.

1613, Nov. 18.—Allen. Abraham, grant to, of the office of Surgeon to the King, in place of John Nasmyth, deceased.

1615, Jan.—Primrose. Duncan, grant to, of the office of one of the King's Physicians for life.

1616, Dec. 14.—Primrose. Duncan, grant to, of the office of Chief Surgeon to the King for life.

1616, Sept. 28.—Hay. Archibald, grant to, of the office of Surgeon to the King for life.

Dr. James Chambers.

1617, March 14.—Chambers. James, warrant to pay, one of the King's Physicians, £250 as a free gift.

1619, July 9.—Chambers. James, grant of the office of Physician in ordinary for life.

1619, Dec.—Chambers. Dr., Physician to the King.

1624, Oct. 4.—Chambers. Dr. James, and J. W. Rumler, the King's Apothecary, were at an Inn near Kenilworth Castle, and being angry because they found no provisions they pretended to burn the sign, when one, Toucher, said they might travel three days in Scotland and find no food nor lodging.

1617.—Silvester. Michael, page to the Queen, is a suitor to the King for £30, moiety of a debt for £60 due by Dr. Thos. Bonham, for practising physic for a year without licence from the College of Physicians.

The Apothecaries' Company.

1618, April 26.—Proclamation commanding all Apothecaries to compound their medicines after the directions of the Pharmacopœia Londoniensis, lately compiled by the College of Physicians of London.

1620, August 4.—Proclamation confirming former orders that no medicines be compounded within seven miles of London except by the Company of Apothecaries in

London, and according to the Pharmacopœia Londoniensis; also that the recent order in Chancery, settling the differences between the Grocers and Apothecaries, be observed.

1621, Feb.—Petition setting forth that the Charter to the Apothecaries was injurious to the Grocers and to the Vendors of distilled waters, and praying for an alteration. The late Lord Chancellor Ellesmere refused to seal the patents as long as he lived, but it was done by the present Lord Chancellor.

1623, April 9.—Petition of the Master and Wardens of the Apothecaries, for the King's letter of recognition, that Gideon Delaune [? Launey] assistant of the Company, who is likely to be elected Master, may be made free of the city, in order to avoid any difference that may arise from his want of this privilege.

1624, April 19.—Act of Incorporation of the Apothecaries of London, "for avoiding of deceipts and abuses in making and compounding of phisicall receipts and medicines, and for the suppressing of empiricks and unskilful practizers and professeurs of the art or misterie of Apothecaries, in and about the city of London."

1624, May 25.—The King explained to the Lord Mayor and Aldermen of London that he passed the patent to the Apothecary Company from his own judgment, for the health of his people, knowing that Grocers are not competent judges of the practice of medicine. He intends to make good his well-founded act, and his intentions are to be made known to the Speaker, that his Majesty may preserve his proper right to take care for the good of his people.—*Secretary Conway to Solicitor-General Heath.*

1624, May 28.—An address of the Commons to the King, presenting the grievances of which they request redress; the third was the incorporation of the Apothecaries of London as separated from the Grocers.

The King in his reply, dated May 29, says, "he intends to maintain the Apothecaries' Company separate from the Grocers, who have no skill in their wares, and he complains of the rashness of the Commons in attacking patents without due examination.

1624, June 2.—The King declares that the erection of the Apothecaries into a Company is a general good.

1624, July 2.—Warrant to the Company of Apothecaries to proceed in the due execution of their Charter, separating them from the Grocers' Company, notwithstanding proceedings in the House of Commons.

College of Physicians.

[College of Physicians, Incorporated 1518.]

1621, Dec.—The University of Oxford requested that the Doctors of Physic should not be prejudiced by anything in the Statutes of the College of Physicians in London.

1622, July 2.—Note of the desire of the College of Physicians for power to punish offenders against their statutes, through defect of which many complaints are made.

Letter to the Lord Mayor of London to aid the College of Physicians to reform and suppress unlearned practitioners in the city, and within seven miles of it.

Letter also to the President and Censors of the

College of Physicians, authorising them to appoint regular practitioners.

1625, March.—Petition of the College of Physicians to the King. Some of the nobility of the Kingdom having proffered large contributions towards establishing a garden for trees, plants, and fruits, etc., pray that his Majesty will further the undertaking, and permit them to make choice of a fitting site for the said garden.

1627, July 23.—A complaint brought to the Council against the farmers of the alum works, on account of the loathsome vapour from these works, to the great annoyance of the inhabitants within a mile compass, tainting the pastures, and poisoning the very fish in the Thames river. Referred to the College of Physicians.

CHARLES I.

The Barber-Surgeons.

1627, March 3.—Petition of the Masters or Governors of the Mystery and Commonalty of Barber Surgeons of London to the King. Under Charters of previous Kings they have attained to as good knowledge of their art as any nation whatsoever, and also bred up many able young men; but care should be taken to suppress the impostors, "alients," and unskilful persons, who daily lurk about the city of London. Pray for renewal of their Charter, with power to suppress unskilful practisers in the art of Surgery.

Under-written a minute of the King's granting the prayer of the petition, with a reference thereon to the Attorney-General.

1629, Aug. 8.—The differences between the Physicians, Apothecaries, and Barber Surgeons are agreed, and a new Charter to be granted to the Barbers and Surgeons containing fourteen new regulatious. These differences were settled by Lord Keeper Coventry.

1632, Dec. 8.—The King, to the Masters, Wardens, and Assistants of the Company of Barbers and Surgeons, to elect a learned Doctor of Medicine to read a lecture on Surgery, every Tuesday, as formerly hath been done by Dr. Gwynn.

JAMES I.

1618, July.—Frederick. Mr., the King's Surgeon.

1619, Dec. 30. — Proclamation forbidding the planting of Tobacco in England and Wales, being most unwholesome to that imported, and as causing the use of it to spread into the country parts of the Kingdom.

A certificate of the College of Physicians showing that Tobacco grown here is unwholesome.

1620, May.—Biggs. Thomas, Surgeon, petitions the Council. His profession not affording him maintenance because of late times it is so much practised in the country by ladies and other gentlewomen, he planted an acre of tobacco, in ignorance of the late proclamation, and finding himself liable to damage, has come up from Nottinghamshire to sue for pardon.

1620, July 20.—Macalo. John, grant to, Physician to the King, of a pension of £100 per annum.

1621 —Bayley. Dr., Cheadle. Dr., two medical men mentioned.

1622, March 20.—A warrant from the Earl of Oxford addressed to Captain John Pennington, to press Thomas Tomlinson, surgeon, to serve in the ship *Victory*, then at Plymouth, and to go on board at once.

1623, June 16.—Testimony of Dr. Moundefore, President of the College of Physicians, London, Dr. Henry Atkins, and others, confirming the testimony of the Cambridge University in favour of Dr. Wilson's abilities as a Physician.

CHARLES I.

1625.—Harris, M.D., Mr. W.

1625.— Medical Report on the sickness of some Nobleman, and the course of treatment adopted. Signed by Doctors Michael Malescotius, Henry Blackwood, and John Durel.

1625, August 31.—Andrews. Michael, grant to one of His Majesty's Surgeons in Ordinary, and to Mary, his wife, and the survivor, of a pension of £150 per annum.

Impressing for the King's Service.

1625, September 4.—Certificate of the Mayor and Justices of New Sarum, that William Goodridge pressed to serve as a Chirurgeon in the Army at Plymouth, has borne the office of Mayor, and is now an Alderman of that city. He is about the age of three score; is subject to gout and stone; and has not sufficient skill for his Majesty's Service.

1626, July.—Petition of the Surgeons pressed into the Fleet, that if there are to be no Physicians or Apothecaries,

they may have an allowance to provide "physic and surgery."

1626, August.—The Surgeons beg that every Surgeon may spend the money allowed for himself in his own way, namely, £10 for physic, and £7 10*s.* imprest money. Mr. Wooddall had bought such medicines as were only suited to his own practice.

1627, April 20.—Petition of the Mayor and Commonalty of Plymouth. The sick, hurt, and infected people in their hospitals and elsewhere, suffer much for want of Surgeons, of whom the Cadiz Expedition, and the late mortality, have left the town destitute. The fear of being pressed debars able persons of that kind from living among them. Pray that Frederick Christian, and John Davies may be freed from being pressed, so long as they shall be employed for the town and hospital.

1627, Oct. 16.—Wishes honest Dr. Moore had been with them at St. Martin's, Isle of Rhé, where the Duke of Buckingham had an army for the relief of the place, instead of his Scots doctor, who put the whole army in alarm every other night.

1627, Nov. 22.—The Master of the Company of Surgeons of London, has imprested six of the Company to go down to Portsmouth. Some of them are to go to Portsmouth, and some to Plymouth, to attend the wounded men from the expedition to Rhé.

1628, April 26.—Petition of Abigail, widow of Walter Priest, to George, Duke of Buckingham. Deceased was employed during the expedition to the Isle of Rhé, as Surgeon to the Duke. Died since his return, leaving the petitioner with two small children with slender means. Wants to receive the money due for

her husband's services. Endorsed with an order for the payment.

1628, April.—The King orders the Barber-Surgeons to impress a certain number of Surgeons to be employed in the Fleet.

1628, June 25.—The Surgeons of the ships haunt the taverns every day, and are making extravagant demands.

1636, March 16.—Officers of the Navy to the Council. Surgeons being presently to be appointed for the ships employed in the present service, and John Woodall was paid £50 and impressed, but now being a prisoner in the Fleet, ask for his release, or they must take some other order for the service.

1636, March 23.—The Officers had given order to the Master and Wardens of Barber-Surgeons Hall, to press Surgeons for the ships of the first fleet, to appear before the officers of the Navy, at the Meeting House in Mincing Lane, on Friday, April 1, for the Vice-Admiral and Rear-Admiral to be satisfied of their sufficiency. Council ordered that £10 should be given to purchase physical drugs for every of the King's ships; £5 for every Merchant ship; £3 for every Newcastle ship, to be paid into the hands of the Company of Barber-Surgeons, who were to see the same carefully bestowed.—*Whitehall.*

John Wolfgang Rumler.

1624.—Rumler. J. Wolfe, Apothecary: name mentioned.

1625, Oct 8.—Rumler. John Wolfgang, one of the Apothecaries in ordinary, grant for life of the office of Apothecary to the household, with the fee of £40 per annum, and bouge of Court.

Grant to him for life of the office of compounding and serving all sweet waters, powders, and other odoriferous things, for the service of the King and Queen, with the fee of twenty marks per annum.

1627, March 21.—Rumler. John W., the Apothecary in ordinary attendance upon the Queen, to have his diet, as formerly, or an allowance of 6*s.* 8*d* per day in lieu thereof.

1627, Nov. 6.—Grant to John W. Rumler, for life, of the office of Apothecary in ordinary to his Majesty, with the fee of £40 per annum, as the same was granted to Jolliffe Lounes, deceased.

Also a warrant to the Treasurer of the Chamber to pay him for physical and odoriferous drugs for the use of his Majesty's person.

1634.—The King to the Lord Treasurer. John Wolfgang Rumler, one of the Apothecaries in ordinary, and appointed to deliver all physical and odoriferous parcels for the household, being about to relinquish his former place, and to be joined with George Sheires in the execution of his place for the Household, the King continues to him the benefits of his former patents, the execution of the place only excepted which he had bestowed upon Jolliffe Lounes. The Lord Treasurer is therefore to suffer his bills by the King, already signed, to pass the Seals without further hindrance.

1626, April 4.—Walker. William, surgeon, warrant to pay £50, as the King's gift to him for embalming the body of King James.

1626, August 13.—Wolfe. Mr., grant to, the sole execution of the office of Apothecary to the Queen's household with the same allowance as Mr. Sheires, Apothecary to the King.

1626, Nov. 8.—Collins. Dr. John, grant to, of the office of Physic Professor in the University of Cambridge for life, with the fee of £40 per annum, in the place of John Gostlin, deceased.

1627, April 7.—Whyte. John, had given poison contrary to law; and Anthony Browne employed by the College of Physicians to apprehend him was refused assistance by John Fletcher, a constable.

1627, June 2.—Atkins. Henry, and Chambers, Thomas, certify that Sir Edmund Hampden, prisoner in the Gate-house, was dangerously sick, and required fresh air, and the help and counsel of the best Physicians.

Dr. James Chambers.

1628, May 5.—Chambers. James, petition of one of the Physicians in ordinary to the King. The late King [James I.] granted the Petitioner and John Brooke for their lives the office of Receiver of Fines and Forfeitures due on penal laws, on certain terms, but in seven years made little profit. Prays for a new grant on other terms, which is ordered by the King.

1630, August 15.—Chambers. Dr. James, to Secretary Dorchester, acquainting him with the arrangements

existing in the Nursery of the young Prince, [afterwards Charles II.] on one of his Nurses being seized with ague and threatened jaundice. The Prince thrives well. He has neither sucked, nor wakened but once all that night, and is yet asleep. His favor and complexion amend daily. Agues rather sharp and frequent. The Lady Governess has had two smart fits. She has rested well all last night, and is now in good temper. He attends Dr. Mayerne's coming (who was married yesterday,) to consult for her relief.

1633, Feb.—Chambers. Dr., one of the King's Physicians.

1628, May 6.—Leighton. Mr. Alexander, Dr. of Medicine, at his house on the top of Puddle hill, beside the Blackfriars Gate, near the King's Wardrobe.—Superscription on a letter written by his son, Robert, then a boy at Edinburgh High School, afterwards Archbishop Leighton.

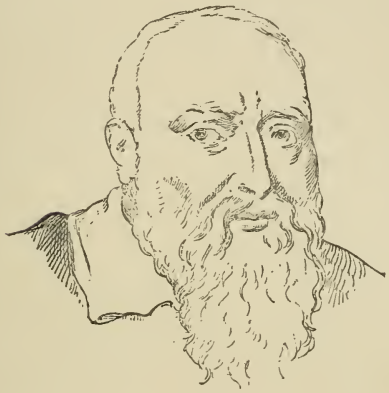
1629, June 25.—Quincey. John, surgeon, London.

1629, June 30.—André. Michael, warrant to pay, one of the King's surgeons, all monies paid in by his procurement on account of a subsidy granted to King James in the seventh year of his reign until they should amount to £1000, which was the sum granted him by the late King.

1629, Dec. 4.—Dixon. John, Chirurgeon General.

Sir Theodore de Mayerne.

[This celebrated Physician was born at Geneva, September 28, 1573; he obtained his M.D. degree at Montpellier, 1597; and became Physician to Henry IV. of France about 1600.]



1611, June 17.—Grant to Dr. Theodore de Mayerne, late Physician to the French King, of the place of Physician in Ordinary to the King and Queen, fee £400 a year, and annuity of £200 to Marguerite Elburgh de Boetzler, his wife.

1623, July 17.—Mayerne. Dr., prescribed asses' milk for Sir Dudley Carleton.

1624, July 19.—Mayerne. Dr. Theodore de, grant to, King's Chief Physician, leave of absence from his person, and exemption from all taxation to subsidies.

1624, July 24.—Mayerne. The King's Physician, knighted.

1625, July 8.—Mayerne. Sir T., made keeper of the Home Park.

1625, Nov. 21.—Mayerne. Sir T. de, Order to pay, Chief Physician to the King, £100 on the 1st January, for his New Year's gift.

1626, Jan. 4.—Mayerne. Sir T., renewed grant of the office of Chief Physician in ordinary to the King with licence to continue his place of Counsellor and Physician to the French King, and a dispensation of his personal attendance except upon command.

1629, Dec. 21.—Conway. Lord President, one of Dr. Mayerne's patients.

1630, March 31.—Poincteau. Jean, petition of. Petitioner is a son of the celebrated jurisconsult John Poincteau, who was a native of St. Andrews, in Scotland, but died in France. Being desirous to see the place of his forefathers he prays permission to pass and repass to the same, and to show and distribute to the public certain remedies of his invention.

Referred to Mons. De Mayerne, the King's principal Physician.

1630, April 1.—Mayerne. Sir T., reported that the Petitioner having been by profession a Mountebank, both in France and England, was last year sent from Hampton Court to the College of Physicians of London, by whom his remedies were rejected. His petition should be refused, or if he persists in asserting the excellence of his Medicines he should prepare them in the presence of persons skilled in the art.

1630, April 5.—Poincteau. Jean, petition from, sets forth that his Medicines had been examined by the College of Physicians, who had given him permission to sell his antidote against all poison, and his balm for recent wounds, which since October he had disposed of with great success in London, Oxford, and Norwich.

Prays for a pass to Scotland, with permission to sell his medicines for two months in every town going and coming.

Petition referred again to the College of Physicians; and the College reported that they had examined his antidote and balm, and should no way hinder him from obtaining his Majesty's favour.

Further reference to Sir T. Mayerne and Dr. Lester, the King's Physicians.

1630, April 16.—Royal licence to Jean Poincteau to visit the place of his father's birth in Scotland, and to sell and distribute his medicines on the journey.

1630, April 23.—Mayerne. Sir Theodore, and Lister. Dr. Matthew, to the King. They have examined and tested the antidote and balm of Jean Poincteau, and think them likely to be useful. The antidote was tried successfully on two persons, one bitten by a viper, the other poisoned by sublimate of mercury.

1630, April 30.—Colin, Earl of Seaforth, was in a continual course of physic, under Dr. Mayerne.

1630, Oct. 26.—Lord President Conway moves for leave to put himself into the hands of Dr. Mayerne to finish the course of medicine he was taking.

1631, Jan. 17.—Margaret, Lady Savile, writing to Secretary Dorchester, "wishes him to make use of some other physician than Dr. Mayerne." Sir Henry Neville and the writer's nephew, Levingstone, assured themselves that his physic shortened their days.

1631, March, 30.—A report in French, presented by the King's direction to the Council, signed by Sir T. Mayerne, David Bethune, and Matthew Lester, the King's Physicians in ordinary. They give advice upon a variety of points of sanitary regulation, and

especially recommending the institution of a Chamber or Office of Health, and the erection of four or five hospitals, or pest houses, one distinguished beyond the rest, to be established at Chelsea, near the College of Controversy, or towards Paddington, by the side of the stream which runs in that district.

1631, April 30.—Secretary Dorchester was in the hands of Dr. Mayerne.

1633, May 14.—Mayerne. Sir Theodore, to Secretary Windebank. The Attorney General has sent the writer a patent prepared in favour of his wife, by the King's order, signified by Secretary Coke; begs Windebank to procure the King's signature before he puts his foot in the stirrup for Scotland.

1633, Nov. 9.—On a note, in the handwriting of Nicholas, relating to business to be transacted by the Lords of the Admiralty, these words :—"Sir T. Mayerne's patent for oysters against the jurisdiction of the Admiralty."

1633, Nov. 16.—The question again before the Admiralty, when it was noted that they could not get a copy of Mr. Murray's patent.

1635, Oct.—Mayerne. Sir T., lived in St. Martin's-in-the Fields.

1635, Nov.—Lady Mayerne received £50.

1636, March 24.—Mayerne. Sir T., and Cadman. Dr., received a grant of privilege for fourteen years for sole exercise of a new way of distilling strong waters, and making vinegars, viz., out of cider, perry, and buck, whereof they are the inventors, representing rent of £10 to his Majesty.

1636, April.—Mayerne. Sir T., name appears on a list of

those in default for Ship Money. Afterwards paid £4.

1638, September 30.—Petition of the Society of Apothecaries of London to the Council. Petitioners crave assistance to regain their right infringed upon by a late Charter of Incorporation of the Distillers.

1638, September 30.—Sir Theodore Mayerne, First Physician to the King and Queen, Sir William Brouncker, one of the gentlemen of the Privy Chamber, and Thomas Cadyman, Physician to the Queen. Answer of the above to the Petition of the Apothecaries: That the Charter granted to the Apothecaries was limited to the preparations in the Pharmacopœia Londoniensis, and such others as physicians should prescribe; but that the trade of the Distillers existed long before the grant of the Charter to the Apothecaries, and that the Charters granted to Sir Theodore Mayerne and others were for new inventions. The Lords are called upon to admonish the Apothecaries to content themselves with their proper trades, to speak with reverence of the Lords, to acknowledge their teachers and superiors the Physicians after a more respective manner, to think of nothing more than to furnish their shops well, and to use diligence about their patients.

1639, Feb. 4.—Petition of the Lord Mayor of London to the king: objecting to enrol the Charter of Distillers, and to give them and their apprentices admittance into the freedom of the city. They found that most of the members were members of several Companies also. They also find that the Vintners, with the Wine-merchants, Barber Surgeons, and Apothecaries who were empowered to distil "hote" waters, and

make vinegar, would be deprived of that liberty by the Company.

Endorsed to the effect that his Majesty is not satisfied with the reasons given, and if the Lord Mayor cannot furnish better reasons he is forthwith to cause the said charter to be enrolled.

1636, June 24.—Pass for Jaques de Mayerne, son of Sir Theodore Mayerne, Isaac Chouart, and Daniel Treswell, to go to Sir Theodore's house near Geneva, and to take with them two servants.

1636, June 25.—Mayerne. Sir T., writing to secretary Nicholas from Twickenham Park, complains that the passports to quit England have lately been very much enhanced in price. . . . Mr. Willis required 50*s*., besides a fee to himself, and a further sum for the seal, and some gratuities for the porter and others. Having never paid more than 20*s*. before, and 10*s*. for the seal, sends his passport back until he understands that an increased rate of charges has been ordered by the Council.

1638, March 20.—Mayerne. Petition of Sir, as physician to both their Majesties, Sir William Brouncker, and Dr. Cadman, physician to the Queen, together with the distillers of spirits, *aqua vitæ*, strong waters, vinegar, and "beer egar" makers, within London and Westminster, and twenty-one miles round. Divers petitions have been presented by distillers for obtaining several incorporations, and upon several references their differences have been fully debated. Now with unanimous consent they all jointly petition for one incorporation, with certain powers, which are here briefly stated. Pray direction to the Attorney General to prepare a bill accordingly. Endorsed: Reference to the Attorney General as prayed.

1638, May 12.—Lady Margaret Fleming named as a patient of Sir Theodore Mayerne.

1638, June 22.—Mayerne. Sir Theodore, to the Count d' Amont [Lord Livingstone of Almond]. A long letter of medical advice. Lord Livingstone must not believe that the remedies he is using have been useless, although he has not yet experienced any benefit arising from them. Recommends him to use "Spa-waters," and especially to go to the waters of Knaresborough, which are sharp, vitriolic, and ferruginous, if in his own country there are no similar waters. Wishes him to drink these waters in increasing quantities, beginning with four glasses, or 40 ozs., by the day, and augmenting the amount day by day until he is able to take ten glasses, or 100 ozs., which would be enough to do him good, although some people run on to 120 ozs. or 150 ozs.

1638, August 16.—James, Lord Livingstone of Almond, at Harrogate, sends word to Dr. Mayerne that he had remained a fortnight at these waters with little good.

1638, August.—Grant of incorporation to Sir Theodore de Mayerne, Sir William Brouncker, Dr. Cadman, and others, for distilling strong water, and making vinegar in London and within twenty-one miles thereof, by the name of the Master, Wardens, Assistants, and Commonalty of Distillers of London, with various customary powers. No others to practise this trade unless they have served seven years apprenticeship. They are to have the right of searching the premises of all who sell these wares, and to examine the materials for making them, and the measures, and to destroy unwholesome waters and vinegars. To have the right of search over all brewers for such low

wines as they distil, and their materials, and finding them musty or unwholesome are to destroy them, but the Brewers are not to be impeached in distilling their worts and drugs into low wines.

1639.—The Company of Distillers complain to the king that the Lord Mayor has not yet enrolled them a free corporation, and asking that it should be done without further delay. Showing that the Barber-Surgeons and Apothecaries were ordered by the lords to practise distillation so far as their own deeds were concerned, and no further.

[Sir Theodore de Mayerne died at Chelsea, March 15, 1655.]

Robert Herring.

1630, July 30.—Herring. Robert, Barber Surgeon, Petition to the King. Has served the late and present King for ten years, in Denmark, the Palatinate, and at Cadiz. During his absence one, John Stanford, being killed the Coroner's Quest found one, Robert Herring, a person unknown to the petitioner, guilty, who was thereupon indicted and outlawed. The petitioner fearing to commit himself into the power of law, prays for a reference to the Attorney General, to prepare a pardon. Reference made accordingly to the Attorney General to enquire all particulars.

1630, July 30.—Report of Attorney General Heath to the King. That though the petitioner cannot give full satisfaction in the negative that Herring might not have killed the party mentioned in the interim, between some of his employments; but whoever did it, it was divers years since. Petitioner has been at Cadiz, Rhé, and Rochelle. He had been

long employed in the King's service, and was not prosecuted by any.

Endorsed: The Attorney General ordered to prepare a pardon.

1630, Nov. 25.—Bethune. Dr. David, one of the King's Physicians, warrant to pay £400, without account.

1630.—Primrose. Dr. James, to the King. Many being constrained to go out of the kingdom to learn Physic, offers, if the King will institute a lecture in Westminster or London, to teach the same four times a week without payment.

TOUCHING FOR THE KING'S EVIL.

1631, April 10.—John, Lord Poulett, sent a child, a little girl, to the King to be touched for the King's Evil, and she has come home safely, and mends every day in health.

1632, Jan. 15.—Godre. Bois, a Frenchman, prisoner in the King's Bench, takes upon him to cure the King's Evil, and daily a great concourse of people flock to him, although it is conceived that if such cures have been it is rather by sorcery and incantation than by any skill he has in physic.

Endorsed: The Lord Chief Justice of the King's Bench is to call him for examination, to be indicted for cosenage.

1632, June 7.—Sir Thomas Richardson, Lord Chief Justice of the King's Bench, to the Council, thinks there is not sufficient evidence to convict Bois Gaudre of

cosenage or sorcery, but thinks he has committed a contempt worth punishment, in taking upon him to cure the King's Evil. He has imprisoned him, of which he complains bitterly.

Following this opinion is the evidence taken:

William Davies, porter of the Marshalsea: About two years past James Philip Gaudre came to be a prisoner in the Marshalsea, and about a year ago took upon him to cure the King's Evil. Notice was taken of his skill by reason of a little child whom the said James Philip did cure. Has seen him spit upon his hand, and rub the sores therewith, crossing it with his hand, and afterwards hanging a little piece of paper about the necks of the patients. Has known seven score come to him in one day to be cured, and many have told defendant they found ease by him. Before he took upon him to cure that disease he was very poor, and lived upon the alms of the basket; but since, he has been seen to have good store of money. A smith from St. Giles's in the Fields paid him 25*s.* for a glass of water. Informant has often seen him refuse to drink in the morning, and he said if he drank or ate in the morning he could do no good in touching and curing that disease. Given January 28.

1632, June 7.—Examination of James Philip Gaudre, Knight of St. Lazare, in France. Is a Frenchman, and has been in England for seven years, chiefly at Sir Thomas Wolseley's house, whose daughter he married, until two years past he was arrested for debt. By his experience in Surgery has recovered many poor persons of the King's Evil, some before his Majesty touched them, and some after, in healing up their

sores. Never made any benefit by his skill, other than sometimes those whom he had done good to would give him a Capon, or small sums paid by him for herbs, and other things. He gives inward medicines, which causes the sick person to purge and sweat, and also applies poultices and plaisters to the sore. Used his skill often in France, and cured many. Did not cure any in England until Midsummer last, when a poor man, who had but one son, who was sick of that disease, made moan to him, and he cured him. Thinks that by reason he is the youngest of seven sons, he performs that cure with better success than others, except the King. Has cured well-nigh two hundred since December last. The Surgeons hereabout are very ignorant of that malady. Denies that he ever spat on his fingers, and crossed the sore. The words on a paper, which, for no reason, he hangs about their necks are, "In nomine Jesu Christi, ipse sanctur." Has no skill in sorcery, witchcraft, or enchantment, nor ever used any such thing. Has spent some time in the study of philosophy, and physic, and of mathematics, to understand fortifications.

1662, July 4.—Proclamation [Charles II.] appointing the times for touching for the King's Evil to be from Allhallowtide to a week before Christmas, and the month before Easter, and ordering all who come to bring certificates from the Vicar and Churchwardens where they dwell that they have not been touched before for that disease.

Regulations for touching for the King's Evil: That the Serjeant Surgeon in waiting give tickets only to the apparent cases, those doubtful to be further

examined; the people to be taken as they come, except at general healings, when those that come far are to be first taken; tickets only to be given to those that have the Evil, and to none in Whitehall, and no fee to be demanded of the Surgeon.

LEWIS LE MYRE.

1631, March 25.—Grant to Lewis le Mire of the office of Apothecary to the Prince, with the fee of £40 per annum, surrendered by John Wolfgang Rumler, Apothecary to the late Queen Anne.

1632, June 1.—Myre. Lewis le, petition of Apothecary in Ordinary to his Majesty and to the Prince and Princess, to the King. Served the King's father and mother for many years, in which time he served in divers provisions for their services, and "all the accompliments for the embalmation of both their Majesty's bodies," being the greater part of his estate, all of which he is unpaid, and, thereby, much in debt. He has also supplied for the households of the Prince and Princess, many of whom have been sick, "many medicaments, perfumes, sweet odours, and odoriferous waters." Prays special warrant for payment.

Ordered to be paid: the Lord Treasurer was to advise how it could be conveniently paid.

Another petition of same date from Lewis le Myre, saying that he was sworn his Majesty's Apothecary in Ordinary, at the King's coming to the Crown, and asks for diet in kind according to his patent.

1633, March 3.—Myre. Lewis le, petition of, Apothecary in Ordinary to the King of France and the Princesses, to the King. Sets forth that various sums are due to

him for provisions, for embalming the body of the King's mother, for necessaries supplied to the household of the Prince and Princess, for his diet unpaid, and his annuity of £40 four years behind. Prays reference to the Lord Treasurer, Lord Chamberlain, Lord Cottington, and Sir Henry Vane, or any of them.

Reference ordered to the Lord Treasurer and Lord Cottington.

1633, Nov. 30.—Myre. Lewis le, Apothecary in Ordinary to the King and Royal children. Petition to the King. Notwithstanding the King's directions so often reiterated for petitioner's satisfaction for embalming the King's mother, and the arrears of his diet, and for attendance on the Royal children, yet he has not nor can receive one penny, to his utter undoing. Prays that he may be satisfied.

Reference to take order for its settlement.

1632, Dec. 6.—Charles I. has had the small-pox, and is in a fair way of recovery.

1633, March 5. — Lister. Matthew, the King's Physician, certified that Sir William Ashton was unable to eat fish, and so Archbishop Abbot granted him a licence, with his wife Anne, and any five other persons whom he might invite to his table, to eat meat on prohibited days.

1633, May 14.—Nicholas. Dr. Matthew, Chaplain to the King, writes a letter to his brother, Edward Nicholas, in which he relates minutely the circumstances of an accident to his cousin Ned, the son of Edward, while at school. In some boys' sport Ned had been dragged

down backwards by a school-fellow, who, rolling above him, broke his arm. Describes the care taken by the Schoolmaster, Pinkney [of West Dean] and by Burges, the bone setter, "a plain countryman, whose only skill is much experience."

1633, Oct. 2.—Hickes. Thomas, Bill for medicine supplied to Edward Nicholas. Following are extracts: a dose of purging pills, 2*s.* 6*d.*; a purge for your son, 3*s.*; a purge for your Worship, 3*s.* 6*d.*; a glass of chalybeate wine, 4*s.*; total amount, £2 12*s.* 6*d.*

[A pill at this time was about the size of a walnut.]

1635, Jan. 10.—Hickes. Thomas, Apothecary, Bill for medicine for Nicholas and his wife. Among the items is, "ingredients for China broth, 5*s.*"

1635, July 25.—Hickes. Thomas, Apothecary, Bill for medicines supplied to Nicholas and his wife. Among the items are: a dose of pills for night for Mrs. Nicholas, 1*s.*; a purge potion, 3*s.* 6*d.*; an emplaster for the neck, 1*s.* 6*d.*; a purge for your Worship, 3*s.* 6*d.*; a preparative apozeme, 2*s.* 6*d.*; a powder to fume the bed clothes, 4*s.* Total, £2 2*s.* 6*d.*; receipted.

1633, May 23.—Thomas, Earl of Arundel and Surrey, to Sir Henry Vane, Comptroller of the household. The Lord Treasurer has that night been in a continual fit of the stone, with some aguish distemper which Dr. Hervye [? Harvey] conceives to be only an accident of the fit of the stone, and so does the writer, out of what he has often felt.

1636, Jan. 27.—Andrewes. Michael, his Majesty's Surgeon, got a grant of a forfeited bond for £200, which became forfeited to the crown because a man to whom the bond was given committed suicide.

An Office of Health for London.

1637, Aug.—The Royal College of Physicians to the Council. Report on all such annoyances as they conceive likely to increase the sickness in this populous city. They were :—1. The increase of buildings by which multitudes are drawn hither to inhabit. 2. Inmates by whom houses are so pestered that they become unwholesome. 3. Neglect of cleansing the common sewers and town ditches, and permitting standing ponds in inns. 4. The uncleanness of the streets. 5. Laystalls so near the city, especially on the north side. 6. Slaughter-houses. 7. Burying of infected persons in churches and churchyards in the city. Overlaying the churches with burials so that many times they take up bodies to make way for more burials. 8. Carrying up funnels to the tops of the houses from privies and vaults. 9. Selling musty corn, and baking bread thereof, and brewers using unsound malt. 10. Butchers selling unsound cattle. 11. Tainted fish. They suggest the formation of a Commission or Office of Health, which has been found useful in Spain, Italy, and elsewhere.

The College Defied.

1637, Dec. 1.—Affidavit of George Brome, beadle of the College of Physicians, London, and Richard Bootwell, merchant tailor of London. One Twigg, near the Custom House, who takes upon him to administer physic, was by Brome required to come to the College to answer before the President and Censors, and Brome showed him a Council warrant to that

effect, but he refused, and reviled Brome, and the warrant, and the President, and the College.

1637, Dec. 28.—Grant of *2s.* per day for keeping his Majesty's garden doors at Whitehall to Henry Middleton, during life.

Grant of the offices of distiller of sweet herbs and waters, and the keeping of his Majesty's library to the same, during life.

Grant of the office of Serjeant-at-Arms to the same, with the fee of *12d.* per diem, during life.

THE PHYSICIANS AND THE APOTHECARIES.

1638, April 11.—Answer of the President and College of Physicians of London to a petition of the Apothecaries to the Council. The delays complained of in the petition have arisen from the service of his Majesty and the sickness. Since February 6, 1636, the apothecaries have never stirred. To the few grievances annexed to the petition the doctors answer: 1. No Fellow of the College keeps an Apothecary in his house, although by law they might so do. 2. In forty years, not above eight have been discommoned, and of these five were brought for judgment before the Star Chamber, whereby the Lords may discern whether the College had not good cause so to do. 3. They never searched, nor destroyed any drug, but as by Act of Parliament is prescribed. 4. Anonymous names are sometimes given to known things, else the patient might suffer sometimes in his fame, and sometimes for other causes. This grievance is

added, not that they can be grieved therewith, but that they must show even before the Lords their respect to the College to be none at all.

1638, June 11.—Allott. Dr., St. John's College, Cambridge, "a rare practiser both in physic and surgery."

ADRIAN METCALFE.

1639, March 16.—Grant of the office of Apothecary in Ordinary to his Majesty [Charles I.], with the fee of £40 per annum, to Adrian Metcalfe, in reversion to John Wolfgang Rumler, who now holds the same.

1639, Dec. 21.—Grant of the office of providing and serving all perfumes and sweets for the use of the King and Queen, to Adrian Metcalfe, for his life, in reversion after George Sheires and John Wolfgang Rumler, with the several fees of 20 marks apiece as they now have. Also the office of Apothecary in Ordinary to his Majesty's household granted to Francis Metcalfe and Adrian Metcalfe successively for their lives, in reversion after George Sheires, with the like fees and allowances as Sheires now enjoys.

1639, Dec. 21.—Warrant to the Treasurer of the Chamber for payment of all bills for physical and odoriferous perfumes, sweet waters, and the like, for his Majesty's servants below stairs, to Adrian Metcalfe, his Majesty's Apothecary, to begin from Michaelmas last, and to continue during pleasure, the said bills being first subscribed by one of his Majesty's Physicians, or the Principal Officers where those parcels were delivered, which employment George Sheires, his Majesty's Apothecary, lately had.

1639, May 10.—George Viscount Chaworth, Sheriff of the County of Nottingham, is in the Physician's hands, and cannot live unless he immediately repairs to Bristol and uses the waters of St. Vincent's Rock, which they conceive, with the assistance of the bath, the only means left for his recovery. Asks permission to go. Certificate of Sir Theodore Mayerne, and John Moor.

1649, Dec. 31.—Meeting of Council of State. Dr. Paget recommended as Physician to the Tower. Appointment confirmed Feb. 5, 1650.

THE COMMONWEALTH PERIOD.

GOVERNMENT SURGEONS AFLOAT AND ASHORE.

Laxton, the Apothecary.

1650, August 1.—Laxton. Thomas, Apothecary, to furnish ten medicine chests for Ulster, and twenty for the Lord Deputy, at £15 per chest. That Surgeons' Hall view the chests and judge of their goodness and their price.

1650, August 16.—Laxton's drugs were approved by Dr. Waidson for the use of the Garrison at Kilkenny.

1650, Oct. 28.—Warrants from the Council of State and Admiralty Council to pay Laxton interest at eight per cent. on £450 15*s.* and £217 10*s.* 8*d.*, unless he is paid within six months after delivery.

Surgeons and their Ships.

1649, April 13.—Allen. Richard, selected.

1649, Dec. 28.—Rawlins. Robert, appointed to the *Constant Warwick.*

1650, Oct. 27.—Brooke. Peter, claimed compensation for his chest of surgery, and clothes detained by Captain Pearce.

1651, Feb. 8.—To John Bishop and Charles Heaman, Surgeons of the *Crescent*, and the *Anne and Joyce*, £1420 for curing 380 sick men and maimed soldiers, sent on board their ships at the Firth, by command of the Lord General—£4 for each.

1652, Nov. 4.—Kersh. Samuel, Surgeon of the *Falcon*.

1653, March 23.—Lynde. Matthew, Surgeon of the *Rainbow*.

1653, June 1.—Napkin. Roger, late Surgeon of the *Anthony Bonadventure*, petitions for allowance to fit himself for service, having lost medicaments, instruments, and books value £40, when his ship was taken in a fight with the Dutch.

The Council of State direct the Navy Commissioners to make speedy payment to petitioner of £10.

1653, Jan. 11.—Price. Mr., late Surgeon of the *Foresight*.

1653, Jan. 11.—Adam. Jno., Surgeon of the *Garland*.

1653, June 14.—Williamson. John, Master-surgeon of the *Discovery*.

1653, June 16.—West. Mr., Surgeon to the *Kentish Frigate*.

1653, Oct. 24.—Report on the petition of Mary, widow of Jno. Freeberry, Surgeon of the *Bonadventure*, that the £28 12*s*. 6*d*. out of the gratuity of £50 granted her was for medicines to recruit his chest and for the expense of his sickness and burial, supplied by Mr. Layland, at Leghorn. With note by her, requesting a speedy reply, being far from home and having three fatherless children.

1653, Oct.—Petition of Ann, widow of Captain Wm. Rouse, commander of the *Portland*, to the Council of State

for relief, being left with ten children in a destitute condition; her husband died by a shot through the head in an engagement with the Dutch on 31st July last. Certificate by Henry Jackson and John Haslelock, surgeons, on a post-mortem, that Rouse died of the said wound, 28th Oct., 1653.

1653, Dec. 9.—Bemester. Richard, Surgeon of one of the State's ships.

1653, Dec. 9.—Bush. Paul, Surgeon to the *Dolphin*.

1653, Dec. 9.—Price. Andrew, Surgeon of the *Foresight*.

1653, July 7.—The Master and Wardens of Barber-Surgeons' Hall have appointed Thos. Harding, Danial Sneaton, Thos. Hastler, and Isaac Smythyes, Surgeons to the Fleet.

1653, July 11.—Loes. John, Surgeon to the *Westergate*.

1653, July 20.—Smithes and Hasler, Surgeons to the *Rainbow* and *Andrew*.

1653, Aug. 10.—Shewell. Thomas, of Bristol, Surgeon of the *Paradox*.

1653, Aug. 22.—On the petition of Richard Hughes, Surgeon of the *Samuel Bonadventure*, for remuneration for being instrumental in regaining the *Phœnix* from the Dutch, recommended that he be allowed £25 for his services as an encouragement to others. The Navy Commissioners recommended payment to the Admiralty Commissioners.

1653, Sept. 29.—Smyth. John, Surgeon of the *Mermaid*.

1653, Oct. 5.—Thompson. Walter, Surgeon of the *Expedition*.

1653.—Jeffes. William, Surgeon to the *Cat Pink*, lost all he had, value £30, when she was taken in April.

1654, Feb. 17.—George. Thomas, Surgeon of the *Victory*.

1654, Feb. 21.—Linde. Math., Surgeon of the *Sovereign*.

SURGEONS WITH THE ARMY OR ON SHORE.

1649, Nov.—Wye. Richard, Surgeon in Ordinary at Chatham.

1649, May.—Biggs. Thomas, Surgeon in the Yard at Deptford and Woolwich.

1650, April 6.—Order of the Admiralty to pay to Anthony Stephens, Surgeon, £25 10*s.* 6*d.* for the cure of several hurt and wounded men who were brought on shore at Portsmouth.

1650, May 15.—Council of State resolved that the Surgeons of each regiment of horse may have £10 apiece to furnish themselves with horses and furniture to carry their chests; and the same pay for each horse as private Troopers.

Each Surgeon to have an additional sum of £5 for furnishing their chests with medicine, the present allowance being about £10 for each chest.

1650, Oct. 15.—A Physician to be attached to the Northern Garrisons, to have 6*s.* 8*d.* per day.

1650, Sept. 10.—Wales. John, Surgeon to a troop of dragoons raised by Major Thomas Rippon.

1651, May 13.—Waterhouse. Dr. Joseph, for his entertainment as Physician to the Army in Ireland received £40.

1652, June 17.—Stryall. Dr. Adam, received £30 for travelling expenses of himself and family to Ireland to reside as Physician.

1652, Aug.—Paid to William Cullen, Mayor of Dover, for the care of the wounded, both English and Dutch, at Dover, and for the doctors' bills, £83 19*s.* 4*d.*

1653, March 25.—Stevens. Anthony, of Portsmouth, Surgeon to the Navy Garrison.

1653, June 13.—Petition of Michael Barnes, Surgeon to the

Council of State, for an order for payment of an allowance to his mate. Was appointed to attend upon the maimed soldiers at Portsmouth, and allowed both a mate and assistant, both of whom he was forced to pay; but cannot get the pay allowed as others, because he is not free of Surgeons' Hall, and is thereby disappointed of other employments, reduced to poverty, and must perish with his wife and children if not relieved.

1653, June 20.—Barons. Mr., a Surgeon, and Godfrey, a Surgeon, at Portsmouth.

General Blake and his Wounds.

1653, May 21.—Order from the Admiralty Commissioners to the Navy Commissioners to make a bill for £50 to John Haslelock, Surgeon, for attending to cure General Blake of wounds received in the last engagement.

1653, July 6.—Robert Backborne, Walderswick, near Southwold, to the Admiralty Committee. General Blake came on shore last night. I and Captain Limbrey repaired to his quarters, where we found him in a very weak condition, full of pain, both in his head and left side, which had put him into a fever, besides the anguish he endures by the gravel, insomuch that he has no rest night or day, but continues groaning very sadly. This place affords no accommodation at all for one in his condition, there being no Physicians to be had hereabouts, nor any to attend him with necessary applications. Mr. Haslelock, his surgeon, is with him for the present, but expects to be called on board from us. Should not

Dr. Whistler be speedy down to him, and he removed from this place, where it is impossible he should take any rest if he were inclined?

1653, July 8.—General Blake went on shore sick two days since, and as his condition is very dubious, I think Dr. Whistler's repair to him at Walderswick will be very seasonable and welcome.

1653, August 8.—General Monk to the Admiralty Committee. Dr. Whistler has come down, and I have sent him to look after the sick and wounded men at Harwich, Ipswich, Southwold, Dunwich, and Yarmouth.

Dr. Thos. Beaumont, for attendance on 21 men, to be reduced to £10 10*s.*, part being charged in a former account . . . . . £16 0*s.* 0*d.*

Peter de la Pier, surgeon, of Canterbury, for 12 Dutch prisoners, sick in Canterbury Church £8 5*s.* 6*d.*

John Wren, surgeon, medicines for 42 Dutch prisoners, from nine ships . . . £29 4*s.* 6*d.*

George Simpson, providing them with necessaries, 2nd March to 31st July . . . £5 10*s.* 0*d.*

1653, Sept.—Bills sent in by John Lee, Mayor of Canterbury, of the surgeons and others for attendance on the sick and wounded seamen and Dutch prisoners, from March to Sept., 1653, viz:

Roberts. Nathaniel, apothecary, for medicines for 46 English, advised by Dr. Golder . £88 18*s.* 7*d.*

Golder. Dr. John, for attendance on 42 of the above men, 59 days at 15*s.* a day . £44 5*s.* 0*d.*

1653, Oct. 3.—Dr. Whistler to accompany Ambassador Whitelocke on his Embassy to Sweden, as Physician.

1653, Oct. 14.—An order for payment of £100 to Dr. Bathurst, who was sole attendant physician to Dr. Whistler at Ipswich and Harwich, from 17th June to 5th October.

1653, Oct. 17.—The charge of the surgeons is £3 15*s.* a day at Yarmouth.

1653, Nov. 26.—Petition of Hump. Cole, a surgeon, to the Council of State, for allowance of his charges and pains in going to Yarmouth by order of Col. Goffe, to the assistance of the wounded men sent on shore from after the last engagement with the Dutch, received 10*s.* a day for his time while there, but did not receive his allowance, and now the Navy Commissioners refuse them.

1653, Dec. 23.—The Commissioners for sick and wounded to the Admiralty Commissioners. Sending the accounts of the Bailiff of Southwold, for disbursements for sick and wounded men and Dutch prisoners, amounting to £1819 3*s.* 4*d.*; and there is a balance of £769 3*s.* 4*d.* due; 1110 men have been entertained, and £55 10*s.*, being 1*s.* each man, has been paid to the prejudice of the State. £170 is charged for attendance, £80 for conduct money, and £160 for surgeons and travelling charges, and many other over-charges requiring investigation.

1653, Dec.—The Mayor of Canterbury sends an account of Israel Jacob, apothecary, for medicine, etc. supplied for Dutch prisoners; with certificate of the demand of Dr. Wm. Jacob, of £12 for visiting them.

1653, Dec.—The Commissioners for sick and wounded. Request the Admiralty Commissioners to pay £8 1*s.* to Wm. Hayworth, surgeon, for 175 days' services

with the sick and wounded at Ipswich, from June 10 to December 2.

1654, Jan.—From the Admiralty Commissioners to the Navy Commissioners on certificate of the Commissioners for sick and wounded. They are to make out a bill to Math. Winde, Surgeon, of Ipswich, for £58 10*s.* for attendance on the sick and wounded put on shore there from the Fleet.

1654, Feb. 6.—Shawe. Robert, and Duckinfield, Rd., to the Admiralty Commissioners, were appointed to look to the wounded at Yarmouth.

1654, Feb. 14.—The Commissioners for sick and wounded recommend the Admiralty Commissioners to pay £16 14*s.*, being ten groats a day each, to John Skinner and Robt. Seaman, Surgeons, of Harwich, from Aug. 7 to Sept. 26 last, for their pains.

1650, Feb. 7.—Castle Elizabeth, Jersey. Promise by Charles II. that Tobias Whittaker, M.D., having served him very faithfully as Physician in Ordinary, when he settles his household servants, shall be sworn and settled Physician to the Household, with all the dues, rights, and privileges appertaining thereto. Signed by the King, and countersigned by Secretary Nicholas.

1660, Sept.—Grant to Dr. Tobias Whittaker, of the office of Physician in Ordinary to the Household; fee, £50 a year.

1651, Oct. 2.—A recipe in French by Signor Cardossi for a syrup to cure lung disease and cough, by which in thirty days those given up by the Physicians will be

restored to health, and by continuing for thirty days more, will be confirmed.

1660, April 26.—John Windebank, M.D., to have license to go further from his house in pursuance of his profession than the limits for delinquents.

Dr. Timothy Clarke.

1660, May 21.—Warrant to the Board of Green Cloth to increase the allowance to Dr. Clarke, now sole Physician to the Household, to 12*s.* a day, from the allowance heretofore paid to the late Dr. Whittaker.

1660, Dec.—Grant to Dr. Timothy Clarke, of the office of Physician in Ordinary to the Household; fee, £50 a year.

1663, March 7.—Commission to Dr. Timothy Clarke, Physician in Ordinary, to be physician to the new raised Forces within the Kingdom.

1664, Dec.—Warrant to the Board of Green Cloth to increase the allowance to Dr. Clarke, appointed Physician to the Household in place of Dr. Whittaker, deceased, to 12*s.* a day, the same allowed to other Physicians in Ordinary.

1667, June.—Warrant for a grant to Dr. Timothy Clarke of the place of second Physician to his Majesty, void by decease of Dr. Quatremaine; fee, £100 a year. To serve as first physician on death or surrender of Dr. Bates.

Francis Metcalf.

1660.—Petition of Francis Metcalf, Apothecary in Ordinary to the Household, for continuance in the said office, to which he was appointed eighteen years ago. Lost his waggon of medicines, etc., at Naseby; had his office

at Whitehall plundered; and not having £10 left in the world, was forced to compound for liberty and livelihood, but has ever remained faithful.

Certificate by Peter Newton that Francis Metcalf was sworn Apothecary for the Household, at York, June 17, 1642.

1661, August.—Petition of Francis Metcalf, Apothecary in Ordinary to the Household, to the King, that his suspension from office, entered in the Signet office, may be withdrawn, he being again sworn in, after a full hearing of Mr. Solby's claim, was appointed in 1639; has £2,000 arrears due; was plundered in the wars in which his father, Sir Francis Metcalf, was murdered, and his five brothers all died.

Dr. Wm. Quatremaine.

1660, July.—Grant to Dr. Wm. Quatremaine of the office of second Physician in Ordinary; fee, £100 a year.

1663, Nov. 6.—Petition of Dr. Wm. Quatremaine to the King for a grant of three fourths of three hundred acres of fen land called Gatcomb Haven, near Portsmouth, recovered by him from the sea; also for confirmation of the other fourth purchased by him from those to whom it was leased for 99 years at fourpence an acre.

1663, Dec. 22.—The King to Sir Edwd. Alston, President of the College of Physicians. Recommends Dr. Quatremaine, one of his Physicians in Ordinary, to take such rank in the College as may comport with his relation to the Royal person, and be agreeable to the justice and honour of the College.

1660, May.—Petition from Edward Dawtrey, M.D., for restoration to his place as Physician to his Majesty. Was sworn in to the late King's service at Oxford; attended him till the battle of Naseby; and had been imprisoned and ruined for causing his Majesty's Worcester declaration to be printed and published.

1660, May.—Petition for a warrant for Martin Llewelyn, M.D., for the place of Physician Extraordinary, granted him at request of the Duke of York.

With note from the Duke to Sec. Nicholas, that the King consents thereto.

1660.—Dr. William Dun, of Aberdeen, Physician in Ordinary in Chemistry to the French King, to be sworn Physician in Chemistry to his Majesty. Served under the Marquis of Montrose in Scotland; was exiled, and promised a place in the household abroad, but failing this, through sickness, lived by his practice, and so prospered, that Dr. Vallot recommended him to the King of France, whither he is to return, after recovering his lost patrimony in Scotland.

1660, June.—Petition of Dr. Samuel Bispham for the place of Physician to his Majesty, being the only surviving Physician of the late King; spent £7,000, and lost £10,000 more, besides the loss of practice, in an embassy which he undertook to France, Geneva, Florence, and Venice, in 1643.

1660, August.—Petition of John Watson to the King, for admission to the place of Serjeant-Surgeon, as held by his father under the late King, which is his right by

course; was Army Surgeon in the late wars, and, in January, 1644, sworn Surgeon in Ordinary, and is almost ruined by imprisonment, plunder, sequestrating, and distraining.

1660, August.—Grant to John Watson of the office of Surgeon in Ordinary; fee, £40 a year.

1660, July.—John Chase, his Majesty's Apothecary.

1660, Sept.—He petitions for a lease, or rental of 20*s.*, of a small parcel of land next the tennis court in St. James's fields. . . . Granted as to garden for plants.

1660, July 28.—Warrant for a grant to Dr. Walter Charleton, Physician to the late King, of the office of his Majesty's Physician in Ordinary.

1660, July.—Grant to Dr. George Bate of the office of first Physician in Ordinary; fee, £100 a year.

1660, July.—Grant to Dr. John Baker, of the office of Physician in Ordinary; fee, £100 a year.

1660, August.—Grant to Dr. Samuel Barrow, of the office of Physician in Ordinary; fee, £100 a year.

1660, August.—Grant to Dr. Charlton of the office of Physician in Ordinary; fee, £100 a year.

1660, Sept.—Grant to Dr. Robert Morrison of the office of King's Physician and chief Herbalist in the Physic Garden, Saint James's Fields, and Overseer of all the Royal Gardens at Hampton Court.

1660.—Petition of George Solby for the place of Apothecary to the Household, granted him February 20, at Brussels, but from which one Metcalf tries to dispossess him, and has offered him £250 to relinquish his right.

THE RESTORATION.

SURGEONS AFLOAT AND ASHORE.

1661, March 19.—Manestee. Robert, Surgeon to Captain John Beere.

1661, May 4.—Whitwell. Thos., Surgeon to the *Welcome.*

1661, June 3.—Bigg. Jas., recommended by the Barber Surgeons' Company to the Commander-in-Chief of the *Garland*, as a skilful Surgeon.

1661, July 27.—Goldingham. Thos., Surgeon of the *Gainsborough* in 1657 and 1658.

1661, Oct. 14.—Certificate by Sir Edward Alston, President, and four other Fellows of the College of Physicians, that they have examined and approved Richard Clampe, who has practised medicine in Lynn Regis.

1661, Dec. 21.—Woodroffe. Timothy, practises physic at Henry Birkett's, in Gilgarra.

1662, March 28.—Captain R. Hodges to the Navy Commissioners. Is not satisfied with the Surgeon appointed him by the Hall, as he has never been in the West Indies : wishes to take Phil. Dingley instead.

1662.—Certificate by Dr. George Thomson, and four other physicians to Thos. Horsington's fitness for medical practice.

1663, March 14.—Wye. Wm., served as Surgeon in the *Dolphin* from 1659 to 1663.

1664, March 8.—Captain John Tyrwhitt desires to have Henry Grimes as surgeon.

1664, Oct. 7.—Bushell. John, a Surgeon on board of the Fleet.

1664, Oct. 18.—Thicknes. Ralph, and Thos. Hollier, wardens of Surgeons' Hall, complain of surgeons taken abroad without the approbation of the Surgeons' Company.

1664, Oct. 31.—Downs. Wm., Surgeon to the *Resolution.*

1664, Nov. 24.—Solby. Mr., may well be trusted with the sole fitting of all surgeons' ships for the Navy.

1665, March 24.—South. James, Surgeon of the *Guinea*, has disappeared.

1665, April 6.—Rider. Hugh, writes to Rd. Reynolds, clerk of the Surgeons' Company, about his misfortunes and losses as Surgeon to the *Nonsuch* lately wrecked. Begs to be allowed to retire because he is sick.

1665, April 24.—Pearce. Mr., Surgeon-general to the fleet.

1665, May 5.—The Master Surgeons chosen for the hospital ships are Edmund Higgs and William Smart, experienced surgeons employed in the last Dutch war. Must have three mates to each ship.

1665, May 11.—Pistoll. Mr., Surgeon of the *Tiger*, on his way to London to account to the Board for absence from his ship.

1665, May 17.—Brooke. Peter, Surgeon of the *Happy Entrance.*

1665, May 24.—Certificate by the Masters and Wardens of Barber Surgeons Hall, of the goodness and reasonable prices of a list provided by Mr. Solby of drugs, instruments, etc., provided for Mr. Smart's chest, as surgeon of one of the hospital ships.

1665, June 21.—Downs. Wm., Surgeon of the *Swift-sure*, and Robert Peirse of the *Resolution.*

1665, July 18.—Nash. Robt., Surgeon of the *Yarmouth.*

1665, August 9.—Burleigh. James, Surgeon to the *Great Gift.*

1665, Sept. 7.—Nixon. Peter, Surgeon to the *Little Gift.*

1665, Oct. 18.—Chandler. Stephen, Surgeon of the *Revenge.*

1666, Jan. 12.—Jackson. Mr., Surgeon of the *Clove Tree*, and Mr. Giles of the *Hilversome*, wish to exchange ships.

1666, Jan. 20.—Bush. Paul, Surgeon of the *Hind.*

1666, Jan. 22.—Chandler. Mr., Surgeon of the *Resolution.*

1666, Jan. 22.—Pearce. Robert, Surgeon of the *Revenge.*

1666, Feb. 19.—Clarke. Matthew, Surgeon of the *Prince Royal.*

1666, Feb. 19.—Nash. Thos., Surgeon of the *Providence.*

1666, April 21.—Morrison. Ralph, Master-surgeon of the *Fairfax.*

1666, April 21.—Flatman. John, Surgeon of the *Victory.*

1666.—Dyke. Humphrey, Surgeon of the *Leopard.*

1666, Sept. 14.—Commission for Walter Rosse to be Surgeon to the Duke of Monmouth's regiment.

1667, Jan. 2.—Husband. Thos., Surgeon of the *Antelope.*

1667, Jan. 24.—Pearce. J., Surgeon-general.

Dr. Nicholas Le Fevre.

1660, Nov. 15.—Warrant for a grant to Nicasius Le Febvre of the place of Chymist to the King, with the fee of £150 a year.

1660, Dec.—Grant to Nicholas Le Fevre, of the office of Professor of Chemistry and Apothecary in Ordinary to the Royal Family, fee £150 a year.

1661, Oct. 19.—Note of a warrant required for the ship *Fortune*, laden with thirty-six packs of the instruments and chemical preparations of M. Le Febvre, Professor of Chemistry to the King, with mention of exemption from payment of 5*s.* per ton, and forbearance of search till discharged at St. James's, many of them

being spirits, oils, and essences, which might be spoiled by opening.—Order granted.

1661, Dec.—Grant to Nicholas Le Fevre of the office of Professor of Chemistry and Apothecary in Ordinary to the Royal Family, fee £150 a year.

Evelyn in his Diary under date Sept. 20, 1662, says; "I presented a petition to his Majesty [Charles II.] about my own concerns, and afterwards accompanied him to Monsieur Febure, his chymist [and who had formerly been my master in Paris], to see his accurate preparation for the composing Sir Walter Raleigh's rare cordial; he made a learned discourse before his Majesty in French on each ingredient."

1663, March 14.—Petition of Nicasius Le Fevre to the King, for wages, allowances, etc., due to him as Apothecary to the Household since 1660, of which he has as yet received nothing. With reference thereon to the Board of Green Cloth, and their report that there is but one Apothecary allowed for the Household, and the place is settled on John Jones, who has £60 a year, and £12 board wages.

1663, April 29.—Warrant to the Board of Green Cloth to add to the present household allowances £60 a year for board wages, and £12 a year for bouche of Court to Nicasius Le Fevre, as Apothecary to the Household, with £4 19*s.* 6*d.* for fuel for the laboratory.

1664, Feb.—Petition of Nicasius Le Fevre to the King, for continuance of the grant of £4 19*s.* 6*d.* monthly, for the firing of the laboratory, which the Board of Green Cloth have refused to pay since December last.

1664, Feb. 15.—Warrant for the payment of arrears due to Nicasius Le Fevre of his allowance of £60 a year for board wages, £12 for bouche at Court as Apothecary

to the Household, and £4 19*s.* 6*d.* a month for fuel for his laboratory.

1663, March 20.—Order for a warrant to pay to Nicasius Le Fevre £40 a year as Apothecary to the Household. [Appointed 31st Dec. 1660.]

1666, Dec. 1.—Petition of Nicasius Le Fevre to the King for an effectual order for payment, with arrears of his monthly allowance for his laboratory, and for his office of Apothecary and Chemical Professor. The Board of Green Cloth stated the salaries were paid till the settlement of the Household in Dec. 1662, when only one apothecary being allowed, no provision was made for him.

With memorandum of a warrant for his payment.

Dr. William Denton.

1661, Jan. 12.—The Duke of Ormond to Sec. Nicholas. Forgot to move the King in behalf of Dr. Denton, who may hope to be received not only for his merit, but Senior Physician alive who was sworn to the late King, having attended him from 1636 to the surrender of Oxford. Denton would have been ruined for corresponding with the Duke had not Cromwell's secretary, for fellowship sake, suppressed the letters. He will not be a supernumary, as Dr. Moore was lately dead.

Endorsed with form of a warrant to the Lord Chamberlain to swear in Dr. William Denton, as Physician in Ordinary, with priority as servant to the late King. Note added that he was sworn in Jan. 24, 1661.

1661.—Warrant for a grant to Dr. William Denton of the place of third Physician in Ordinary, Dr. George Balls

being the first and Dr. William Quatremaine the second, with salary of £100 and promise of the place of second or first Physician as they fall in ; with proviso that the office of third Physician shall cease on his promotion.

Reasons for granting the above patent to Dr. Denton : he will wait for the benefit of the place, but there are not so many appointed with whom the King is pleased, but that on settling the Household as to who are for the King, and who for the Queen, there will be room for him.

1667, June 15.—Dr. Denton is the first physician now living who was sworn to the late King.

Richard Pile.

1661, March.—Petition of Richard Pile to the King, to confirm to him, being sworn his Majesty's Surgeon eighteen years ago ; served him faithfully in England and beyond seas, till sent by him from Jersey to England.

1661, March.—Petition of Richard Pile to the King, to permit his warrants for the office and fees of first Serjeant-Surgeon, which are post-dated a year, to be altered in his Majesty's presence.

1661, March.—Grant to the same of the office of Principal Surgeon ; annual fee, £80 ; and the first Serjeant-Surgeon, fee £26 6*s.* 8*d.*

1661, March.—Grant to the same of an annuity of £150.

1661, July 11.—Grant to Richard Pile, of the office of first Principal Surgeon to the King, and of first Serjeant-Surgeon ; and similar grants to John Knight and Hum. Painter, with annuities of £150 each.

1661.—Petition of Richard Pile to the King, that no grant surreptitiously obtained by Mr. Painter, may prejudice his right to the place of Serjeant-Surgeon, which the Lord Chamberlain, on hearing the dispute between them, decided to belong to him, as conferred by the late King.

1661, March.—Grant to Humphrey Painter of the office of Principal Surgeon, and Serjeant-Surgeon; fee, £26 6*s.* 8*d.*

Grant to the same of a pension of £150.

1661, January.—Petition of James Hyde, M.D., for admission as Physician in Ordinary to his Majesty, or the future Queen, as promised him April 17, 1655, at Cologne; was sworn in last June, 1660.

1661, August.—Note that Sir John Colladon, sworn Physician to the King, as Prince in 1640, and admitted in 1660, is to have a patent sealed in the best form.

1661, March.—Petition of John Knight, Serjeant-Surgeon to the King. Having served his Majesty abroad, was continued with others in their respective places on the Restoration; received the usual fee belonging to his office for embalming the Duke of Gloucester, being the only profit that has fallen to him, but is now ordered to divide it with Richard Wiseman, Surgeon in Ordinary. Begs not to be made the only person who has had his fee taken from him.

Grant to John Knight of the office of Principal Surgeon; fee, £26 6*s.* 8*d.*, with the like pension of £150.

1662, Sept.—Petition of John Knight, Serjeant-Surgeon to the King. Having served his Majesty abroad, was continued with others in his place on the Restoration; received the usual fee belonging to his office for embalming the Duke of Gloucester, being the only profit that has fallen to him, but is now ordered to divide it with Richard Wiseman, Surgeon in Ordinary. Begs not to be made the only person who has had his fee taken from him.

1662, Sept. 11.—Warrant to Mr. Knight to retain the whole usual fee which he received for embalming the late Duke of Gloster, which has been disputed for by some other of the King's Surgeons.

1662, Jan. 24.—The King to the Company of Barber-Surgeons of London. Recommends them to appoint George Solby, his sworn Apothecary, to provide fit medicaments for chests to be used in the Services, by the sea and land, at reasonable rates; and to take care that none other be appointed thereto during his life.

1661, June 5.—Order by Lord Chamberlain Manchester, for a warrant for a pension of £100 to Thos. Woodhall, as Surgeon in Ordinary.

1661, August 19.—Grant to Thos. Woodhall of the office of Surgeon in Ordinary, in place of Richard Watson.

1661, August 5.—Grant to Richard Wiseman of the place of King's Surgeon, instead of Michael Andrews, deceased,

with annuity of £40; also grant to him of the place of Surgeon in Ordinary, with annuity of £150.

1661.—Petition of Richard Wiseman to the King, for leave to wait as a Surgeon in place of Hum. Painter, who is ill, and to succeed him, with the same title of Serjeant-Surgeon, but with his present allowances. Was the only Surgeon who attended his Majesty as Prince, from Bristol to the West, Scilly, Jersey, France, Holland, and Scotland, and thence to the battle of Worcester, where he was taken prisoner; was sworn second Surgeon on the Restoration, but his attendance became void on admission of two Serjeant-Surgeons extraordinary, and one to the Household.

Grant to Richard Wiseman of the office of one of the King's Surgeons, void by death of Michael Andrews; fee, £40 a year. Grant to the above of a pension of £150.

1661, Feb.—Petition of Peter Chamberlain, M.D., only surviving Physician to their former Majesties, to the King, for a special order to the Lord Chamberlain to admit him, "to his place, without which, on account of some formalities of which he is ignorant, he can neither attend nor have pay."

Annexed is a declaration by the King, that Dr. Peter Chamberlain, Physician to his father and mother, and attendant on his happy birth, is to be Physician in Ordinary.

1661, May.—Grant to Dr. Edward Moore, of the office of Physician in Ordinary.

1662, May.—Dr. Lancelot Harrison, in the place of Physician in Ordinary to the Queen.

1662, May.—Dr. William Whittaker petitions for confirmation of the grant of Physician's place to the Queen as promised.

1662, May.—James Pierce, Surgeon. For the place of Groom of the Privy Chamber to the Queen. Served the Earl of Sandwich as Surgeon in all his voyages, especially in those of transporting his Majesty and the Queen; in the latter recovered Father Dalley, when given up by his Physicians, for which the Queen Mother of Portugal, wished him to be Surgeon to the Queen; and her Majesty promised him the place, but there is no Surgeon sworn, and there would not be more without special command.

1662, August.—Warrant to the Lord Chamberlain to swear in Thomas Middleton, as operator to the Queen.

1662, Sept.—Dr. Bate. Physician in Ordinary.

1662, Oct. 3.—Warrant for a grant to Eustace Burneby, of the sole use of his invention of preparing French and pearl barley, for fourteen years, the College of Physicians and several druggists, grocers, etc., certifying that this is a new manufacture.

1664, June 13.—Warrant to Lord Chamberlain Manchester, to swear in Dr. John Arnold, as one of the Physicians in Ordinary.

1664, Jan. 9.—Warrant for the usual allowance of plate to Sir Alexander Frazer, for new year's gifts, as heretofore made to his predecessors.

1664, March 17.—Warrant to Sir Gilbert Talbot, Master of the Jewel House, for the like allowances of plate for new year's gifts to Sir Alexander Frazer, Physician in Ordinary, as given to his predecessor, Sir Theodore Mayerne.

1664, May 28.—Warrant for a grant to Sir Alexander Frazer of the place of principal Physician in Ordinary, salary £100 a year, with diet, lodging in Court, keeping of two horses, etc., to begin from June 24, 1660.

1667, June 30.—Warrant to the Lord Chancellor, to grant to Sir Alexander Frazer, King's Physician, the estate of Bridget Dennys, an idiot, reserving therefrom £5 a year for her maintenance.

1662, Oct. 12.—Passport for Sir John Finch, M.D., Physician to the Queen Consort, and Dr. Thos. Baines to go to Florence.

1664, May 24.—Sir Hugh Middleton's apothecary's bill since Nov. 24, 1663, total £28 13*s.* 10*d.*

1664, July 24.—Jo. Laurence, to Dr. Albertus Otto Faber: several doctors tell the people his medicine will do them more harm than good.

1663, April.—Petition of Josias Martin to the King, for a mandamus for an M.D. degree in Trinity College, Oxford, where he studied and practised twenty years.

Annexing: Certificate by Charles Scarburgh, Professor of Anatomy in the College of Surgeons, and Dr. Thos. Wharton, to his depth of knowledge and experience in physic.

1663, Dec. 23.—The Levant Company to the Earl of Winchelsea: Wish him to remove from Smyrna Mr. Pickering, a Physician of dissolute life, once discharged from his family, lest his example influence the English there.

1664, Jan. 19.—Warrant to Lord Chamberlain Manchester to admit Charles Turland as Bone-setter in Ordinary to the King.

1664.—Note that Wm. Rosewell, the Queen's Apothecary, is paid out of the Treasury Chamber for all perfumes for her table, the bills being approved by one of the Physicians, the Lord Chamberlain, or Vice-Chamberlain.

MOUNTEBANKS.

1665, April.—Petition of George Moretto, his Majesty's Surgeon, to the King, for leave to erect a stage in both the Universities, and in any other place in the kingdom, free from all impositions, and notwithstanding any other persons having one erected at the time of his coming.

Certificate by Robert Fox, and eight other residents in London, to the wonderful cures of wens, hare-lips, cancers, blindness, etc., performed by George Moretto

on his stage at Tower Hill, those for the poor being done for charity. Dated March 13, 1665.

1665, April 11.—Licence to George Moretto, in consideration of his skill in medicines and surgery, to practise in any part of the King's dominions, and to expose his medicines for sale publicly, by erecting a stage in the Market Place, or any other mode which he deems convenient, without molestation to himself or servant. —Endorsed "Mountebank."

1667, Aug. 5.—Licence for Joannes Michaphilo, a mountebank, to dispose of his medicines, and practise his skill in medicine and surgery, in any city, town, or borough, of the kingdom, none disturbing him, nor erecting stages near any erected by him.

1667, Aug.—Licence to John Russell, mountebank, practitioner in physic and surgery, to erect a stage in London or elsewhere, to vend his medicines, prohibiting all strangers not naturalized to practise near him, in such times and such places as he does.

1667, Sept. 2.—Certificate by P. Massonnet, Physician in Ordinary to the Duke of York, that he has known Mr. Toussain Le Jond, operator in physic and surgery, practise and exercise such professions with great skill and success, in these and other kingdoms, and that he has compounded and publicly sold an excellent Oriental balsam, and other remedies.

1667, Oct. 5.—Grant of licence to Toussain Le Jond, operator in physic and surgery, to erect a stage or theatre in

any town of England or Wales, and to vend his balsams and remedies, remaining in any town as long as he desires.

ANTHONY CHOQUEX.

1665, March.—Petition of Anthony Choqueux to the King, for his board wages from the Green Cloth, or for reference to Counsel of the case between him and Mr. Pierce. Was employed in 1634, on advice of Sir T. Mayerne, to attend the King's servants and others in London, wherein he had great success; served the late King by sea and land; in 1642 was commanded to attend Prince Rupert as Surgeon, and in 1643, sworn Surgeon in Ordinary, but has not yet succeeded to pay and board wages; a report has been spread to his prejudice that he has turned merchant, and Mr. Pierce has applied for board wages.

1665, March 6.—Warrant to pay to Ant. De Choqueux, surgeon in Ordinary, £883 12*s.* in discharge of so much due to him from the late King for services.

1665, March 6.—Warrant for a grant to Ant. De Choqueux of the place of King's Surgeon in Ordinary, salary £80 a year, to begin from 1661.

1665, Nov. 28.—Warrant to the officers of Green Cloth to pay to Alexander Beander, one of the King's Surgeons in Ordinary, his board wages £63 4*s.* 0*d.*, notwithstanding the warrant of suspension.

Dr. Peter Chamberlain.

1665.—Petition of Dr. Peter Chamberlain, only remaining Physician of the late King, and eldest Physician of his Majesty: that his eldest son lately admitted Physician extraordinary, may be admitted as Ordinary, to supply the defects of his aged attendance, but one salary to serve for both.

1665.—Petition of Dr. Peter Chamberlain for a special patent for the sole making, for fourteen years, of coaches, waggons, carts, ploughs, etc., to go without horses, such as he saw at Augsburg fifty years past, the same being only included in general terms in his letters patent for navigation, under the name of Private and Public works of strength and motion.

1665.—Petition of Dr. Peter Chamberlain, eldest Physician in Ordinary, eldest Fellow of the College of Surgeons, etc., to Parliament for an Act granting him a patent, similar to those granted him in France, Venice, and United Netherlands, for his new invention of navigating with all winds in a straight line. With answers to such objections as envy or ignorance cast upon his scheme.

Annexing vindication of Dr. Chamberlain, senr., the King's eldest physician, from the accusation of his enemies; showing that he is not, as reported, "non inventus," but may be found at his lodging, Garlick Hill, near Bow Lane.

1666, May.—Stephen Chase was the King's apothecary when Prince, and his wife was one of the King's rockers.

1666, Jan.—Grant to Jo. Chase of the office of King's Apothecary, fee £115 a year, with reversion to his son James.

1666, April.—Grant to Sir Jos. Hinton of the office of Physician in Ordinary, with £100 annuity.

1666, Sept. 25.—Statement by Jo. Troutbeck, M.D., principal Surgeon in Ordinary; that in October 1659, he was made principal Surgeon in Ordinary in consideration of £2000 of lands then lost. Joined General Monk in Scotland, and has served six years, but had no benefit from his place, being unable to secure the passing of his warrant.

1666, Dec. 18.—Dr. Jo. Troutbeck to Lord Arlington. Had the place of King's chief Surgeon granted to him six years ago, in lieu of £2000 then taken from him: has spent £2000 more in soliciting for it; the place of the Surgeon-General, worth £500 a year, has been disposed of to another, yet has cheerfully served his Majesty both in his preservation and restoration. Begs £200 a year for a term of years, or £400 a year for life.

1666.—Laurence Arbilleur, surgeon of Besançon, to the King. Begs the place of Surgeon extraordinary to his Majesty; served ten years as surgeon in the Spanish armies; has been for six years married and settled in England: is surgeon to the present Ambassador of Spain, and can give proofs of his skill and courage during the late plague.

1667, March.—Grant to Sackville Whittle of the office of Surgeon in Ordinary, in place of Th. Woodall: fee, £40 a year.

1667, April 16.—Warrant to the Board of Green Cloth to enter Sir John Baber into the establishment with the other physicians, paying him 12*s.* a day: at the next vacancy to be admitted to the place of King's Physician.

1667, Oct.—Petition of Sir John Baber, Physician in Ordinary to the King, for a warrant for payment from the Exchequer of £954 4*s.*, arrears of his pay of 12*s.* a day, from Dec. 1, 1662, to April 16, 1667, there being no fund at the Green Cloth Board from which it can be paid.

1667, August.—Grant to Dr. Waldron of the office of Physician in Ordinary to the King's person and household, in place of Dr. Clarke: fee, £50 a year.

1667.—The King had eight Physicians, and four Surgeons in Ordinary.

QUACKS AND QUACKERY.

QUACKERY is not confined to medicine (although when the word is used the popular understanding at once applies it to the healing art). A well-known Devonshire physician defined the term Quack as applicable to every practitioner who, by pompous utterances, mean insinuations, and indirect promises, endeavours to obtain that confidence to which neither education, merit, nor experience entitle him. Accepting this definition, it must be admitted that quackery is as old as science, and that wherever the nature of man has laid him open to be imposed upon by deceptive practices, there the quack has been found ready to gratify man's readiness to be deceived. The quack is a

man of the world, to be found in every nation, civilized or not. But taking the quack in the more limited application of the term, as applied to a practitioner of medicine, the books abound with instances, and volume after volume might be filled with the stories of the tricks he has played wherever the science of medicine has been pursued, whether in Egypt, Greece, Italy, France, or England. The regular practitioner has always been the sworn foe of the quack in England, yet, until within the last half century, there did not exist the means of effectually checking the frauds practised by these unblushing rogues. Now, the quack is almost extant; he no longer frequents our country fair, he is no more to be encountered in our parks, and such poor representatives of the class as may still be found in large cities are content to limit their practice to the sale of some simple purge amongst the very poor.

The methods by which the "run-about" doctors made their arrival known in the villages and towns were very varied. Some travelled from place to place in their own caravan, which fur-

nished them with a sleeping place, a stage, and a store for their drugs. One was content with announcing his arrival by sound of horn or trumpet, another preferred a drum. In France, at the present day, the quack doctor is an important personage at all country fairs. He wears the uniform of an officer of the First Empire, and his attendant, generally a maimed soldier, performs on a horn and a drum. The richer sort of quack hired a carriage-and-four in the towns he visited, and drove about the streets, while liveried servants distributed bills from the dickey. One ingenious quack, when visiting the fashionable resorts of health a century ago, adopted a very clever method of making his presence known. He sent round the bell-man during the day offering a reward of £50 for a dog, lost by Dr. So-and-so, and then followed a recital of the doctor's foreign degrees, and a list of the wonderful cures he had effected. About the same period the parks of London swarmed with fellows, who affecting to detect the signs of disease in the persons they met, would accost them and say that

Dr. So-and-so was renowned for the wonderful cures he made of that particular malady. In Paris, a notorious quack, when he walked abroad in a fashionable quarter, was preceded by a lad who constantly ejaculated, "My father cures all sorts of distempers," and the quack would add in a grave voice, "The child only speaks the truth." One quack advertised water from the Well of Bethesda, which was to be taken when the water exhibited a natural agitation. A customer bought a half-guinea bottle and no agitation appeared for a year. Taking the bottle back, the quack declared that the agitation in a small bottle was so slight that it was hardly likely his customer could perceive it, but in a five guinea bottle the agitation would be apparent to all in the house.

Matthews, in his "Humours of a Country Fair," was not guilty of any exaggeration in the speech of his quack doctor. In reading the letters of grateful patients recommending his elixir, one writes:—"Sir, I was cut in two in a saw pit, and cured by one bottle." Another writes:—"Sir, by the bursting of a powder mill, I was

blown into ten thousand anatomies. The first bottle of your Incomparable collected all the parts together, the second restored life and animation; before the third was finished I was in my usual state of health."

Steele, in a paper contributed to the *Spectator*, dated July 30, 1712, writes:—"The doctor we were talking of adds to his long voyages the testimony of some people 'that has been thirty years lame.' When I received my paper, a sagacious fellow took one at the same time, and read till he came to the thirty years' confinement of his friends, and went off very well convinced of the doctor's sufficiency. You have many of those prodigious persons, who have had some extraordinary accident at their birth, or a great disaster in some part of their lives. Anything, however foreign from the business the people want of you, will convince them of your ability in that you profess. There is a doctor in Mouse Alley, near Wapping, who sets up for curing cataracts, upon the credit of having, as his bill sets forth, lost an eye in the Emperor's service.

His patients come in upon this, and he shows his muster-roll, which confirms that he was in his Imperial Majesty's troops; and he puts out their eyes with great success. Who would believe that a man should be a doctor for the cure of bursten children, by declaring that his father and grandfather were both bursten? But Charles Ingoltson, next door to the "Harp" in Barbican, has made a pretty penny by that asseveration. The generality go upon their first conception, and think no further; all the rest is granted. They take it that there is something uncommon in you, and give you credit for the rest. . . . But as I have taken much liberty with this learned doctor, I must make up all I have said, by repeating what he seems to be in earnest in, and honestly promises to those who will not receive him as a great man—to wit, 'That from eight to twelve, and from two to six, he attends for the good of the public, to bleed for three pence.'"

The art of Bone-setting was a department which the quacks for centuries claimed. It was popularly believed, that the setting of bones was

inherited by certain families, a preference being given to those engaged in farriery; and although there were many of this class of quacks in the beginning of this century, they have almost entirely disappeared; the farrier's children, who were supposed to inherit the art of bone-setting, having taken to more honest courses. The belief in the ability of quacks was not confined to the lower classes only. Men of wealth and high station, believing themselves to be suffering from desperate diseases, were easily persuaded to admit notorious quacks to their sick beds; and Horace Walpole narrates instances in which the quacks effectually cured their noble patients of all diseases by killing them.

MEDICINE IN OLD NEWSPAPERS.

THE oldest prepared medicine of which there is any record, is the eye-salve of a Roman physician; and it is not inappropriate that this should stand at the beginning of our selections from the prepared medicines advertised in the seventeenth century in England. This salve was found at Uriconium, and bore the seal of the Physician who compounded it. The text was as follows:—"TIBerii CLaudii Medici DIALIBAnum AD OMNE VITium Oculorum EX OVO." Translated as "The dialibanum of Tiberius Claudius, the physician, for all complaints of the eyes, to be used with egg."

The newspapers of the latter portion of the seventeenth century abound with advertisements respecting medicines; and from a great host of

them we have selected a number for the amusement of our readers. They will furnish much matter for curious study. The variety of the medicines is wonderful, the boldness of the boast made concerning them is remarkable; and the manner in which the advertisement is set forth, the use of capital letters, and the punctuation, are worthy of notice. They form a curious comment on the customs of social life, and the diseases of the people.

THE SCOTCH PILLS.

WHEREAS Dr. Anderson or the Scotch Pills have been daily abused by dangerous counterfeits since the decease of Mrs. Katherine Anderson. with These are to certifie for the Publick good, That the true Pill is faithfully prepared, and for the future to be sold with printed directions only by Mrs. Isabel Inglis, of Edinburgh, in Scotland, now living at the Hand and Pen, near the King's Bagnio, in Long Acre, and in no other place in or about the City of London.—*London Gazette*, 1689.

OYL FOR THE GOUT.

THIS is to give notice That there is extant an Oyl of very excellent virtue for giving ease in the Gout, approved by above 20 eminent Physicians of the College, London, and that it is a safe medicine, no way hurtful, nor in the least repelling. This Oyl is put up in Bottles, and to prevent Counterfeits

Sealed with the maker's Coat of Arms, viz. Azure, a Cross, ingral'd Ermine, for the Crest a Moor Cock, and sold the largest Bottles of 10*s*., and the smallest for 5*s*., with a paper of directions and virtues at large, stampt with the same Coat of Arms as the Bottles, at Man's Coffee House, at Charing Cross ; at Richard's Coffee House, at Temple Bar ; at Garraway's and Joe's, at the Royal Exchange ; Hill's Coffee House in Holborn, over against Hatton Garden at Buckridge's Coffee house, in Aldersgate street ; Crown Coffee house, in West Smithfield ; Wilkin's Coffee house, in Bishopsgate street ; the Essex Coffee house at Aldgate by the bars ; at Gardner's Coffee house, by St. Mary Overy's Church, in Southwark ; at Freeman's Coffee house, near Bow Church, in Cheap-side ; at Mr. Gravenor's, a Cheesemonger by Cripplegate ; Smyther's Coffee house, near Billings-gate ; and Will's, in Bow Street, Covent Garden.—*London Gazette*, 1689.

LIQUORISH FOR COLDS.

THESE are to give notice that the juice of Liquorish which safely cures all Colds and defluctions upon the breast and all manner of cou[illegible]. extraordinary well prepared may be had at Mr. [illegible]t. Bureau, at the Rising Sun, near the Savoy ; and at Mr. Godet, Sword Cutler at the Duke of Northumberland's Head in the Pall Mall. The Price is a Shilling an Ounce put under a Seal.—*London Gazette*, 1689.

THESE are to give notice that Mrs. Panier who does prepare the Juice of Liquorish, black, brown and white, which is very good for the curing of Colds and defluxions on the Stomach, and who has the honour to prepare the same for Her Royal Highness the Princess of Denmark, does lodge at Mr. Bureau, at the Rising Sun, near the little Savoy Gate, in the Strand, where she will have a good Quantity always ready, and may be spoken with every morning.

and from four till ten at night. The same may likewise be had at Mr. Godet's, at the Duke of Northumberland's Head, at the entrance of the Pall Mall, at reasonable Rates.—*London Gazette*, 1689.

A SWEATING AND CUPPING HOUSE.

JOHN PINDER, a German, hath newly set up a Sweating and Cupping house, in Westmoreland Court, in St. Bartholomew's Close, where men may be sweated and cupped on Saturdays, and women on Wednesdays, with very good Accomodation.—*London Gazette*, May, 1690.

A PHARMACOPŒIA.

PARMACOPŒIA Bateana in English; or Dr. Bates' Dispensatory, containing above 1000 choice Recipes in Physick and Chirurgery; also the Arcana Goddardiana, with above 500 Chymical Processes, to which are added Dr. Goddard's Famous Drops, Russel's Powder, and the Emplastrum Fehrrugum, their Preparations, Virtues, Uses, and Doses, with various Observations and a Rationale upon each of them. By William Salmon, Professor of Physick. Printed for S. Smith and B. Walford, at the Prince's Arms, in St. Paul's Churchyard.—*Gazette*, Jan., 1693.

POWDER FOR THE STONE.

THIS is to give Notice that Mrs. Norridge, who now lodges at the Blue Ball in Exeter Street, in the Strand, has an Infallible Powder for the Stone and Gravel, which was left her by her Father, Dr. Duncan. This Powder is Sealed up with her Coat of Arms, and may be had of her self, at Mrs. Billingsley, at the Printing Press under the Royal Exchange; and of Mr. Howkins, Bookseller, in George Yard, in Lombard Street. She likewise Cleanseth

the Teeth, cures the Tooth Ach, and Scurvy in the Gums, and Setteth in Artificial Teeth. She hath also a most powerful Oil for the Wormes, and an excellent Eye Water. She also hath very good Lozenges for Coughs, Colds, etc.—*Gazette*, Jan., 1693.

THE KING'S EVIL.

MR. JOHN CAMAS, Surgeon, Cures the King's Evil, and all sorts of extraordinary Swelling, by a particular Method. He hath also Invented a new Method of Curing all sorts of Ruptures, as it appeareth by Certificates and Approbations of several Physicians of the College of London. He liveth at the Surgeons' Arms in Red Lion Court, near Bow Street, in Covent Garden.—*Gazette*, Feb., 1693.

A MIRACLE.

A NARRATIVE of the late extraordinary Cure wrought upon Mrs. Elizabeth Savage, (Lame from her Birth), without the using of any Natural means; with the affidavits which were made before the Right Honourable the Lord Mayor, by several credible persons who knew her both before and since her Cure.

Enquired into by Eminent Physicians of the College, and others. With an Appendix attempting to prove that Miracles are not ceased. Printed by J. Dunton, at the Raven, and by J. Harris, at the Harrow, in the Poultry. Price 6*d*.—*Gazette*, Feb., 1693.

EPSOM WATER.

THE Purging Salt of Epsom Water prepared and sold in greater or lesser quantities, by Francis Moule, Chymist, at Glauber's Head, in Watling Street.—*Gazette*, March, 1697.

THE GREAT CORDIAL ELIXIR.

ELIXIR Stomachicum; or, the great Cordial Elixir for the Stomach; of a delicate Flavour, and pleasant bitterish Taste, not Purging but Cordial only; to be drank at any time (but especially in a Morning), in any Liquor, as Ale, Tea, Mum, Canary, White Wine, A Dram of Brandy, etc. It makes the best Purl in the World in Ale and in Canary, Tea, etc., very pleasant and wholesome, far exceeding Purl made of Wormwood, which (being so hot and drying) burns the Sight, and drys the Blood very much: This having the Quintescence of all the Ingredients of the bitter Draught in it, and many other excellent Stomachicks and Anti-scorbuticks brought into a small quantity as that 30 or 40 Drops is a Dose; you make it at your pleasure in a glass of White Wine, Tea, or other liquor; it procures a good Appetite, helps Digestion, expels all Wind, strengthens the Stomach, purifies the Blood, and destroys the Scurvy, with many other Virtues mentioned in the Bills given with it, but these six things especially it does beyond belief, without you experience it. Price One shilling each Bottle. It is to be sold by Mr. J. Dunton, at the Raven, in the Poultrey, and at these Coffee houses, viz., Symonds Inn, in Chancery Lane; at Vigures in the Old Pallace Yard, Westminster; Victualling Office, at Tower Hill; Man's at Charing Cross; Essex, at Whitechapel; North's in King Street, by Guildhall; Richard's, at Temple Bar; Smyther's, in Thames Street; Will's, in Covent Garden; Blackett's, at Spittelfields; West's, at the Postern, in Aldersgate; Hamet's, on London Bridge; Brown's, at Wapping Oldstairs; John's, by the King's Bench; Jonathan's, in Exchange Alley; Smith's, at Lambeth, by the Church; Cleve's at Greenwich, by the Church; by Mr. Thomas Collet, Jun., near the Hermitage, Tobacconist; Mr. Leavinston, Fruiterer, at the Royal Exchange; and Thomas Howkins, in George Yard, in Lombard Street: the author having appointed him only (beside himself) to sell it whole-

sale. Any person wanting to dispose of or sell again, may be there furnished.—*Athenian Mercury*, July, 15, 1693.

A DRINK AND PILL.

IN Gray's Inn Lane, in Plow-yard, the third door, lives Dr. Thomas Kirleus, a Collegiate Physician, and sworn Physician in ordinary to King Charles the Second, until his death, who with a Drink and Pill (hindring no business), undertakes to cure any Ulcers, Sores, Swellings in the Nose, Face, or other parts, Scabs, Itch, Scurfs, Leprosies, and . . . Disease, expecting nothing until the cure be finished. Of the last he hath cured many hundreds in this city, many of them after fluxing, which carries the evil from the Lower Parts to the Head, and so destroys many. The Drink is 3*s.* the Quart, the Pill 1*s.* a Box, with Directions, a better Purger than which was never given, for they cleanse the Body of all Impurities, which are the causes of Dropsies, Gouts, Scurvies, Stone or Gravel, Pains in the Head and other parts. With another Drink, at 1*s.* 6*d.* a Quart, he cures all Fevers and hot Distempers, without Bleeding, except in few Bodies. He gives his opinion to all that writes or comes for nothing.—*Athenian Mercury*, Aug. 8, 1693.

E XTRACT OF LIQUORAS.

THE Extract of Liquoras being a Composition of the best Medicines for the undermentioned Diseases, and altogether different from the common Extract of that name, is far beyond any Medicament ever yet known, or at least Published, to cure all sorts of Colds, Coughs, Chin Coughs, Hoarseness, Shortness of Breath, and any Disease of the Lungs that is Curable. It is exceeding good against the Consumption and Spitting of Blood, etc. It may be taken at any time, and the oftener the better, being so safe and pleasant, that it may freely be given to a child of any age. This Extract is (for convenience of carrying it

in the Pocket) made up into Rolls, and sold for One Shilling the Roll. To be sold by Mr. Dorman Newman, Bookseller, at the King's Arms, in the Poultrey, the Corner shop of Grocers Alley, and at the Rainbow Coffee House at Temple Bar.—*Athenian Mercury*, Oct. 24, 1693.

A FAMOUS DUTCHMAN.

THERE is in this City a very Ingenious Dutchman, called Mr. Vandepolle, who had found the only true Secret for Curing all sorts of Crookedness and Ill-Shape in any part of the Body and Leggs, and that in a very short time, and without putting his Patient to the least pain, provided they be under Twenty Years of Age. He further obliges himself to satisfie any Learned Physician, or other Curious Person, by clear and certain Reason, that it is impossible perfectly to Cure this Malady in the Body by Iron Stayes, which are now used by them who pretend to be most skilfull and expert therein. Any person who desires to Employ him may be further satisfied by one of the King's Physicians, to whom he was recommended by an Eminent Physician in Holland, who has attested the great cures he has done in that Country, and likewise by those he has done in this City, since he arrived. He liveth in Wardor Street, against the Golden Head, at the upper end of Old Soho, behind St. Anns Court.—*Athenian Mercury*, Oct. 31, 1693.

CELEBRATED PURGING PILLS.

AT the Angel and Crown, in Basing Lane, being the second turning in Bread Street from Cheapside, on the left Hand, The Sick may have Advice for Nothing, and excellent Purging Pills prepared by J. Peachy, of the College of Physicians in London; they Cure the Scurvy and Dropsie, they purge the Choller, Flegm and Melancholly, they Purge the Head and Breast, and cure Coughs, they strengthen and cleanse the Stomach, ... and are as proper a Purge as can be used, ... for such as

can't confine themselves when they want Purging, but are forced to go abroad about their Business. They are Sealed up in Tin Boxes, each containing eighteen Pills, Price one Shilling and six pence, with plain Directions in Print how to use them. They that can't take Pills may use my Elixir or Liquor which cures the same Diseases, and is excellent for the Stone and Chollick, Price 2*s.* 6*d.* At the same place may be had approved Medicines for the Cure of Feavers, Agues, Griping of the Guts, Vomiting and Loosness, Worms, Rickets, Rheumatism, or Pains and Lameness of the Limbs, for Rheums in the Eyes, and for many Diseases peculiar to Women, and for the Itch. Many ill men make it their Business to reproach this Publick way of practice, because it thwarts their Private Interest.—*Athenian Mercury*, Nov. 4, 1693.

A CURE FOR DEAFNESS.

A PERFECT Cure for Deafness in young and old, if curable, in ten days time, without pain; for those that have any Impostume in the Head, or pain in the Ear, performed by the Successor of Famous Docter Habbott, who is newly come to the City, and to be spoken with every Monday, Wednesday, and Friday, from Seven untill Twelve at noon, at Windsor Court, over against Somerset House in the Strand, where they may have the Cure Reasonable. If any lives at a distance, they may have the Remedy with Directions. And most Excellent Plasters, which prove an Effectual Cure for Favers; price One Shilling; and there are also for Agues.—*Athenian Mercury*, Jan. 27, 1694.

A FAMOUS NEVER FAILING CORDIAL.

THESE are to give Notice that Thos. Hindes' Famous Never Failing Cordial, famous for its cures for many years, is still to be Sold at Mr. Robert Dove, Cutler, at the King's Head, near the corner of the Minories, near Aldgate; and at Mr. Charles Rack,

a Pewterer, over against the George Inn, in the Burrough of Southwark; and at Mr. John Cresset, at the Lion and Shugar Loaf, over against the King on Horse Back, on the left hand going to Whitehall; and at my house, a Picture Drawer's Shop, at Aldersgate, next the Fountain Tavern, and no where else in London.—*Athenian Mercury*, Feb. 27, 1694.

WATER FOR REMOVING FRECKLES.

ON Ludgate Hill, next Door to the King's Arms Tavern, near Fleet Bridge, any person may be furnished with a Water for taking away the Freckles, Pimples, Worms, and Morphew in the Face, Elixir Salutis Balsamum Vitae Tinctura Vitae. An excellent Water and Ointment for the Eyes, Ointments for the Rickets, Burns, Scalds, Wounds, Aches, Sprains, etc. Powders, Dentrifices, Elixers, Essences, Oils, Spirits, etc., for the Easing and Curing of most Distempers, incident to humane Bodies, Prepared and Sold by B. L.—*Athenian Mercury*, May 22, 1694.

REMEDY FOR THE SMALL POX.

A MOST excellent and safe Remedy in the Small Pox and Measles, which kindly drives them out when flat or struck in; it cures a Looseness, frequently Fatal in this Disease, even to a wonder, beyond all other Remedies yet known; and upon many infallible proofs of its good Effects, exposed for publick benefit, and is to be had at the first house on the Right Hand in Gun Yard, in Houndsditch, the House with a Porch and Hatch.—*Athenian Mercury*, Oct. 13, 1694.

THE BLIND DOCTOR.

A GENTLEMAN lately come to London, that some time was Blind himself, and by that means hath attain'd to a wonderful Art in Curing all manner of indanger'd Eyes, so that none need despair,

if they make their first application to him. For all Sore Eyes, either from sharp Rhumes, inflamed Eyes, Eyelids turn'd outward, or Fistulas, as also Dimsights or any prejudice by Blow, Fire, Gunpowder, Small Pox, or Eyes broke, that the watrish Humour runs out, and the Eye falls flat in the Head, he recovers to sight again; as also Convulsions and Consumptions of the Eyes, and being desired by those that lately made use of him in Norfolk and Cambridge, to let them know where he settles in this City; This is to give notice to them, or to any others, it is at the 2 Blew Balls, in Salisbury Court; his Hours are from 9 to 11, and from 4 to 6 in the Afternoon, where any Artist may see his Operations. He likewise cures All Agues without the Cortex.—*Athenian Mercury*, Oct. 20, 1694.

OLD DR. MOSSE.

AT the Golden Ball, in St. Jone's Court, near Clarkenwel, Lives Docter Mosse, Who hath Obtained the only most Sovereign and excellent Cure for the Gout, viz. A Balsam which, in a moment's time takes away the Pain, be it never so exquisite and intolerable, strengthening and restoring the Joynts or Members Afflicted, to their perfect Vigour, Form, and Motions, the said Balsam, with a Box of Pills, being the most Absolute Specificks for Curing and Defending both Internal and External Parts, from that Miserable Distemper, ever yet published or made manifest by any.—*Athenian Mercury*, Nov. 3, 1694.

THE RENOWN'D EYE-WATER OF THE WORLD.

BEING brought from China, given with the Receipt, by the King to an English Gentlewoman who lived many years in his Court, and for great services done, received it (amongst other Favours) from his Majesties own hand, being a secret of great esteem there. It is exposed to sale for the

benefit of the English Nation, being most certain in the speedy and easy cure of all sore and strengthening all weak Eyes, taking off all manner of Inflammations, Discolourings, Evil Tinctures, Bloodshot, Pearls, Pins, Runnings, Weepings, Defluxions from the head, Cold or hot Rheums, caused by the intemperance of the Brain, Old Headaches, Colds, Heats, much Reading, Writing, Waking or Hard Drinking, and in a word, all Diseases and Infirmities of the Eyes, and this with great success, beyond anything that has appeared in this Part of the World. It is highly esteemed by thousands of People of all qualities, who, to their very great comforts and satisfaction have made tryal thereof. 'Tis to be Sold at Mr. Dunton's, at the Raven, in Jewen Street; at Mrs. Hope's, Bookseller, at the North entrance of the Royal Exchange; at Mrs. Garaway's at the corner of Sweethings Ally, Cornhill, and nowhere else in England, Price, six pence the Bottle.—*Athenian Mercury*, Dec. 22, 1694.

SNUFF FOR TOOTHACHE.

AN excellent Snuff for Toothache, to be had at Tho. Howkins, in George-yard.—*Athenian Mercury*, Jan., 1693.

NECTAR AND AMBROSIA.

THE author of the Rich Cordial, called Nectar and Ambrosia, is removed from Mr. J. Hows, in Fenchurch Street, to Mr. Hugh Newman's, Bookseller, in the Poultry, where Commanders of Ships and others his customers in City and Country may be supplied as formerly.—*Gazette*, Sept. 18, 1699.

APOPLECTICK BALSAM.

WARHAM'S Apoplectick Balsam from Florence, to be known from all Counterfeit Balsams whatever by these five Trials. Men, women, or

children, being seized with any sort of Fits, are presently brought to their sense and speech by only Anointing the Nostrils and Temples with this Balsam.

WARHAM'S Apoplectick Snuff inherits the same virtues against most distempers in the Head, being prepared with all the Chimical Oils of Herbs and Spices that compounds the Balsam. At 6*d.* per Box, or 10*s.* per pound.—*Flying Post*, March 26, 1698.

THE VENETIAN WASH.

THE Venetian Wash, to Beautify and add loveliness to the Face, a Dentifrice to Whiten the Teeth, to be had at Mr. Smith, Bookseller, Russel Street, Covent Garden.—*London Post*, March, 1701.

THE LIQUOR OF AZAM.

THE Liquor of Azam, being the most present Remedy ever yet made use of, for the Stone and Gravel, only to be had at Johns' Coffee house in Sweeting's Alley, near the Royal Exchange. 2*s.* 6*d.* per bottle.—*Flying Post*, April 21, 1702.

SANATIOUS, LIQUOR.

SANATIOUS. The most wonderful Chymical Liquor in Nature. Sold only at Mr. Stephens, next the White Horse in Broad Street.—*The English Post*, July 3, 1702.

PURGING SUGAR PLUMS.

THE too much approved Purging Sugar Plums for Children and others, to whom Physick is Irksome; a secret lately found of by a Physician.

Are sold only by Mr. Evans, at the Green Dragon, in St. Paul's Church Yard. 1*s.* a box.—*The English Post*, June 19, 1702.

PEPTICON SALUTIFERUM.

PEPTICON Salutiferum, to help Concoction or restoring Weak or Lost Appetite, Prepared by an Ancient and Well Experienced Physician, to be sold by Joshuah Stephens, next door to the White Horse, in Broad Street, near the Royal Exchange, 1*s.* 6*d.* a Bottle.—*The English Post*, June 11, 1702.

TO STOP BLEEDING.

THE Cephalick Tincture never before in England is only made and sold by Charles Bloys, and by nobody else. It immediately stops bleeding at the Nose by blowing two or three drops up the head in a Quill. Price 1*s.* per Bottle.—*The Post Man*, April 25, 1702.

HUNGARY WATER.

ANY person that has a desire to dispose of fine Hungary Water, Liquid Snuff, Elixir Salutis, Spirits of Scurvy Grass. Apoplectick Balsam, Matthew's Pill, the Tincture against Gravel and several other celebrated things, may be furnished with such as are true, at the same Prices they are afforded at the Shops about the Exchange, who sell the same. At the Chimest's House, No. One in the New Street, East Smithfield, where any Curious Persons that have a desire to see any of the said things made, or anything else in use, may there truly be taught.—*Flying Post*, Dec. 1702.

THE TOOTHACHE.

AT the Chyrurgeon's Arms, by Clements Inn, Backgate, near Clare Market, liveth Thomas Ferne, Chyrurgeon, who hath an excellent Secret,

that in one Hour's time cureth the Toothache without Drawing, and prevents its ever returning. This hath been experienced for several years by many of the Nobility and Gentry, and several hundreds of others in this City and Suburbs. He is the Author of this Medicine, and to prevent its being counterfeited, disposes of none but what he applies himself.—*Flying Post*, Jan. 1702.

TOOTHACHE.

THE only famous Remedy for the Toothache. The General Applause this Medicine has Already gained is a sufficient Testimony of its Worth. Tis a liquid to be held a little while in the mouth, and wholly free from the Poysonous quality of Aquafortis and Red Mercury in Powder, too commonly us'd in this distemper. Whereas this incomparable Remedy being as safe as a drop of Cordial Water immediately allays all Pains of the Teeth or Gums, and, with God's blessing, infallibly Cures it, without danger of Return, whether it proceeds from Rheum, decay'd Teeth, Worms in 'em, or Stumps. It also preserves them and absolutely clears 'em from the Scurvey. Price 1*s.* each Bottle, with printed Directions, each Sealed up with a Lion Rampant Gardant, the Crest a Griffin Passant.—Sold by Mrs. Milner at the red Man and Dagger, in Popes Head Alley, in Cornhill.—*The English Post*, Dec. 1702.

INCOMPARABLE VAPOUR PILLS.

PILLULAE HYSTERICAE or the Incomparable Vapour Pills being a secret kept in the Bosome of an Antient and Famous Practitioner in Physick still alive, but now has been prevailed upon to give leave that it may be made publick for general Good, not pretendedly, but really so, and to relieve those who for many Years may have had no considerable benefit from Anything. Which Pills allays and surpresses Vapour in Women, (beyond any Medicine yet

found out), which Causes such sick Fits, Swoonings, Swimmings in the Head, Dimness of sight and in many, Convulsions and Death. Men being not exempt from the same Symptoms, which in them are called Hypocondraical Affections, these Pills suppresses and allay them, and being used for sometime, Cures so far as any one Medicine ever did or can.—*London Post*, Jan. 1701.

NECKLACES FOR CUTTING TEETH.

THOSE well known and approved Necklaces of Major John Choke, one of His Majesty's Chymists, for easing young children in breeding and cutting their Teeth, preventing Fits, Rickets, with printed directions of their use at large, sold at Mr. Garway's shop, at the South Entrance of the Royal Exchange.—*London Post*, 1701.

SYRUPUS CATARRHALIS.

THERE is now prepared by an eminent Practitioner in Physick (and sold by B. Harris, the publisher of this paper only), an approved Syrup for a Cough, called Syrupus Catarrhalis, to be taken a spoonful 3 or 4 times a Day, but especially at night going to bed. In an old Physick or Consumptive Cough I dare not Warrant it, but in a Cough or Cold newly got where it is Violent, and lyes Tickling and where there is Pain, and stuffing in the Head, Nose running. In this case this Syrup will certainly take it off in 48 hours, and to assure it will do so any person of good Reputation buying it, who shall come again bringing the empty Bottle, and affirm it did 'em no good shall have there money returned. Price 2*s.* 6*d.* —*London Post*, Jan., 1701.

THE GRAND P.

YOUR Old Physician, Dr. Case, who hath so publickly made the world sensible of his speedy and wonderful method of Curing the Grand P., his

knowledge extends much further by his Spagyrick Art to cure the Dropsie, and no money before the Cure is perfected. Lilly's Head, against Ludgate Church, Black Friersgate.—*English Post*, Jan., 1702.

THE SAL VOLATILE OLEOSUM.

THE Sal Volatile Oleosum, only to be had at Dy Byfield's, in Salisbury Court, in Fleet Street.—*The Post Man*, Jan. 22, 1702.

AN OPTHALMIC SECRET.

DR. Clark's Opthalmic Secret found to Cure the Gutta Serena, or Blindness through stoppage of the Optive Nerves, and for taking away dimness. At his House against Exeter Exchange, next the French School in the Savoy.—*Flying Post*, March 5, 1702.

DIGBY'S INCOMPARABLE SNUFF.

SIR KENELM DIGBY'S Incomparable Apoplectick Powder or Snuff, Which at Once, or at the most Three Times Using of it (with God's Blessing) absolutely Cures the Apoplexy and Lethargy, also Vapours, Drowsiness, Imposthumes, Dizziness, pain and heaviness of the Head. This Remedy being compounded of Noble Cephalick Subjects, wholly differs from any other of this kind, as will manifestly appear by its Colour, excellent Smell and Virtue, which will not decay in some years, and may be used in any season with the greatest safety and advantage. Price 1*s.* 6*d.* a Paper, with Printed Directions, each sealed up with this Seal, viz. Two Twins and a Mullet for the Crest. Sold at Mr. Brooks', Stationer, upon London Bridge.—*The English Post*, July 1, 1702.

BALSAM OF CATHY.

THE true Balsam of Cathy, being the most effectual Remedy brought into Europe for giving immediate ease in the Gout and all Gouty and Rheu-

matic Pains prevailing against those Distempers even to a Miracle, yea, very often in an hour's time in a fit of the Gout, though in the time of its greatest rage and violence, and asswaging the swellings thereof in a very short time. Is to be had only at Mason's Coffee house, in Bartholomew lane, behind the Royal Exchange, at 2*s*. 6*d*. per Box. It never decays.—*The Post Man*, July 4, 1702.

PURGING SUGAR PLUMS.

THE so much approved Purging Sugar Plums, for Children and others, to whom Physick is Irksome, a secret lately found of by a Physician, and experienced by Thousands to be the pleasant, safest, and most effectual Physick in Nature, and the neatest and fittest to be taken by all Persons at all times, and in all Cases where purging is necessary, both for preventing and curing all manner of Diseases; particularly they have been signalized for destroying and bringing away from Old and Young all sorts of Worms and wormy matter in stomach and Guts; curing Coughs, Rickets, Convulsions, whitely and pale looks of Children, Green Sickness in Maids and divers other deplorable Distempers, as inserted at large in the Printed Directions; they being the most general Physick yet known for cleaning the Body of all foulness and humours from Head to Foot, and sweeting the whole Mass of Blood. Are sold only at Mr. Evetts, at the Green Dragon, in St. Paul's Church Yard, each Box containing several Doses. Price 1*s*.—*The English Post*, July 8, 1702.

THE ROYAL COSMETICK.

THE Royal Cosmetick, more than a 1000 times experienced to cure Scabs, Itch, Tettars, Ringworms in a few days.—*The English Post*, Oct. 16, 1702.

ELIXIR FOR THE GOUT AND RHEUMATISM.

WASSE'S Elixir for the Gout and Rheumatism; and excellent for the Chollick, Stone, Gravel, and Ulcers in the Bladder and Kidneys, and is a sure Remedy for the Dry Gripes in the West Indies. Price 3*s.* the Half Pint. Sold by Mr. James Atkinson, Mathematical Instrument maker, near Cherry Garden Stairs, Rotherhithe.—*Observator*, May 20, 1704.

PEPTICON.

PEPTICON, an unparallell'd Medicine, to help a weak Digestion, and procures an Appetite, absolutely cures Consumptions, Asthmars, shortness of Breath, Ulcers, and stuffing of the Lungs, restoring the radical moisture, extinguishing and allaying preternatural heats and thirsts, sudden flushing in the Hands and Face, Vapours, removes all Obstructions in the Liver, Spleen, purifies the Blood and renovates the whole Body by replenishing the Blood and Juices with the true and natural Balsamick Sulphur of Life. Approved and recommended by the most sensible and knowing Physicians and Philosophers particularly the famous Helmont. Sold only at Mr. Stephens, in Broad Street, at 2*s.* 6*d.* a Bottle.—*The Post Man*, Jan. 11, 1704.

DR. FLETCHER'S POWDER.

DR. FLETCHER (formerly of Gutter Lane, City, Chymist) having cured many desperate Diseases by his Powder, is only sold in Fetter Lane, next door to the White Horse Inn, by Mr. Stephens, who married the Docter's only daughter, and was carefully instructed by him several years before his Death to prepare the said Powder and other Preparations. The said Mr. Stephens conceives it a publick Benefit to acquaint those that have already found great Advanvantages by them, and others where they may have it

that so they may not be imposed upon to their hurt. This powder is sold at 6*d.* per paper.—*The Post Man*, Jan. 1704.

PULMONICK ESSENCE.

THE Pulmonick Essence for all sorts of Coughs and Colds being the most effectual Medicine ever made use of, it infallibly curing them in old and young, though never so violent or of long standing; it admirably relieves Consumptive and Ptisical Coughs, and perfectly removes Hoarseness, Wheezing, Shortness of Breath, and in short, all Distempers or Disorders of the Lungs whatsoever, and not only restores and strengthens them, but also defends them from Defluxions or Distillations of Rheum, which by falling thereon would soon cause Consumption; 'tis exceeding pleasant and comfortable, and may be taken going abroad in the sharpest weather without the least fear or danger of cold. To be had only at Jacobs' Coffee House, against the Angel and Crown, Threadneedle Street, at 2*s.* 6*d.* the bottle.—*The Flying Post*, Jan. 11, 1704.

DR. MATTHEW'S PILLS.

DR. MATTHEW'S Pills, which purge by Sweat and . . . are good against the Cholic, Rheumatism, Agues, Fevers, and Pleurisie, likewise good for Women . . . Prepared by Rebecca Duke, at the white Periweg, without Bishopgate.—*Post Man*, April 22, 1704.

THE TRUE DRAWING PLAISTER.

AT Thomas Lyle's, Apothecary, in Winchester Street, near New Bedlam, London, are only to be sold the true Drawing Plaister and Ointment, published in the *Gazette*, which has been above 40 years in Practice, and has gained so great reputation in most parts of this kingdom in curing Headachs,

Convulsions, Sore Eyes, Rheumatick pains, etc., being applyed the breadth of a Sixpence to Head, Neck, Arms, are far more effectual and less troublesom than Blisters, Seatons or Issues, Price 2*s*. At the same place are only to be had the Black and White Pontefract Liquorish Cakes for Coughs, Ptysick, Shortness of Breath, etc., being stampt with the Castle and T. Lyle, Pontefract.—*Post Boy*, May 11, 1704.

THE MERRY CORDIAL.

THE Merry Cordial, singular for the Cure of the Hippo-Vapour or Melancholly in Man or Woman. It opens all Obstructions, exhilirates the Spirits, purifies the Blood and Juices, quiets a disturbed Mind, and wonderfully relieves the Brain, and is a Grand Cordial and Antidote against all manner of Poisons. It is sold in Penny Glasses, at the Coffee Houses, or in quantities at 10*s*. the Gallon, at Rudkin's Coffee House, at the Queen's Bench, Southwark —*The Post Master*, Jan. 27, 1705.

PROPHYLACTICON.

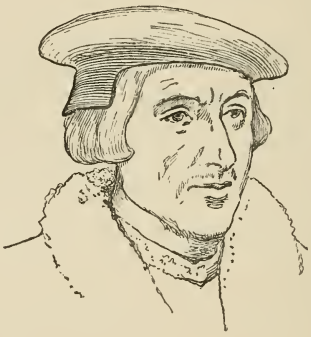
PROPHYLACTICON, an Incomparable Medicine against the ill Effects of hard Drinking.—*Daily Courant*, July 24, 1706.

MEN WHO HAVE ADVANCED MEDICINE.

NO book of medicine would be complete which did not give biographies of those who have devoted their lives to the advancement of the science. It is by the devotion of the individual that science is advanced. But the question to solve was, where should such a list begin? To go back to the earliest records would be to absorb a biographical dictionary in one work; to include the celebrated medical men of all countries would be to stretch our book to unwieldy limits; so we came to the conclusion to make a list as thoroughly English as possible, only taking occasional excursions into other countries to introduce the names of those who, by their genius, marked epochs in the ad-

vance of scientific medicine. Our list of course does not include any of the eminent men who, at the present time, adorn the medical profession.

Linacre. Thomas, was born at Canterbury about 1460, and received his early education in his native city. He afterwards proceeded to



Oxford, where he became a Fellow of All Souls' College, in 1484. From Oxford he had the advantage of accompanying his schoolmaster, William de Selling, on a mission from Henry VII. to the Court of Rome. On their way, Linacre stayed at Bologna, where he made the acquaintance of Angelo Poliziano. He next proceeded to Florence, where the recommendation

left by his schoolmaster caused him to meet with a most courteous reception from Lorenzo de Medici. He was permitted to receive instruction from the tutors of the prince's sons, and perfected himself in the Greek language under Demetrius Chalcondyles. After a time he proceeded to Rome, where he studied medicine and philosophy under Hermolaus Barbarus. Upon his return to England, he proceeded to Oxford, where he took an M.D. degree. While at the University he read lectures on physic, and taught the Greek language. Amongst his pupils was the celebrated Sir Thomas More, as we learn from a letter of Erasmus now in the Record Office, and from that period sprang a friendship of a most cordial character, which continued to Linacre's death. His great reputation as a scholar and a physician led to his being summoned by Henry VII. to Court, and the king entrusted to him the education and the health of Prince Arthur. As a man of learning Linacre ranks as one of the few who at this period brought about a revival of classic learning in England. One of his earliest writings

was a translation of Proclus on the Sphere, which was dedicated to his pupil, Prince Arthur. He also drew up, for the use of the Princess Mary, "Rudiments of the Latin Grammar," written in English. This met with a very welcome acceptance from all learned men. An enlarged edition was printed in London, 1524, with a recommendatory letter attached written by Melancthon.

In the English State papers are many references to Linacre and his friends, and as they have not been collected together before, their reproduction, as they appear in the calendars, will be read with more interest than any summary that might be compiled from them.

1518, July 26.—Erasmus writes: Thomas Linacre is the King's [Henry VIII.] Physician; Tunstal, Master of the Rolls; More, Privy Counsellor; Pace, Secretary; Mountjoy, Chamberlain of the Household; Colet, Preacher; Stokesley, Confessor. Ammonius dead in England.

1519.—Linacre wore the King's livery, and received £12 10*s.* quarterly.

1519.—Erasmus to Johann Faber, vicar of the Bishop of Constance: Linacre is the King's Physician.

1520.—Linacre, says Erasmus, taught Greek to Sir Thomas More, when he was a young man.

1520.—William Latimer, writing from Oxford to Erasmus, says, Linacre spent more than two years in the study of Greek.

1524, Sept. 4.—Erasmus writes from Basle, to Pace, the King's Secretary: Retain Linacre's friendship and Grocyn's if you can. I should always be glad to have such men my friends. I have honourable mention of Linacre in my notes on St. Jerome.

1511, Oct. 5.—Erasmus writes from Cambridge to Ammonius: Could not call on Ammonius when last in London. Knocked at his chamber in the College of St. Thomas, but did not find him at home. After mass heard the tramp of horsemen, asked Linacre to look out, as he [Erasmus] was engaged in writing, and was told that Ammonius was leaving.

1511, Nov. 18.—Ammonius writing from London to Erasmus at Basle; hears from Linacre, the Archbishop has sent Erasmus a sum of money.

1515, April 10.—Erasmus sends congratulations to Linacre.

1516.—At a supper given by Henry VIII., Linacre spoke highly of Erasmus.

1518, April 29.—Budæus writes to Pace: have learnt from your book that Linacre, More, Tunstal, and Latimer, are very common friends.

1516, June 5.—Erasmus writes to Linacre: that he knew of his friendship, and had heard it spoken of by Sir T. More. Begs Linacre to send the medicine he took by his prescription when last in London.

1518, Sept. 4.—Erasmus writing from Basle to Pace, the King's Secretary: knows none in England of whom he holds a higher opinion than Linacre.

1518, Feb. 22.—Presentation for Thomas Linacre to the church of Hollesworth, Exeter diocese.

1520.—Leo X. granted some favour to Linacre, solicited by Pace, the King's Secretary.

1521, Aug. 24.—Erasmus writes to Linacre: is sorry to hear of his declining health. Urges him to publish his writings, and not deprive the world of the fruits of many years' labour.

1518.—Sir Thomas More writes to Erasmus: Linacre sent his translation of Galen to Paris in the previous year, to be printed under the care of Lupset.

1518.—Erasmus expresses his surprise that Linacre's books have not yet appeared.

1518, June 4.—Linacre writes to Budæus thanking him for his care in revising his lucubrations. Has sent him some rings [cramp rings] consecrated by the King as a charm against spasms.

1518.—Budæus writes to Linacre: has distributed among the wives of his relatives and friends the eighteen rings of silver, and one of gold, he received from Linacre, telling them they were amulets against slander and calumny.

1518, Sept. 8.—Lupset has shown Budæus Linacre's translation of Galen, and Budæus writes to Linacre to tell him he greatly approves of it.

1518, Sept. 23.—College of Physicians. Grant of Incorporation of the College of Physicians, London; and licence to acquire lands to the annual value of £12. No person to practise medicine in the City of London or within seven miles of it unless he be a member of the College. Given at the intercession of John Chamber, Thomas Linacre, and Ferdinand Victoria, the King's Physicians; Nic Halswell, John Francis, and Robert Yaxley physicians, and Thomas, Archbishop of York, Chancellor.

1518, Oct. 22.—Erasmus writes to Pace, the King's Secretary: Is much pleased with Linacre's Galen.

1521, May 7.—Christopher Langotius to Linacre: Thanks him for his present which as a token of friendship he received that day from Reginald Pole. Would rather have had a letter from him than gold rings or bracelets. Written from Padua.

1522, March 8.—Thomas Linacre to have a canonry in St. Stephen's Westminster.

1522, Nov. 29.—Dr. Linacre resigned the Prebend of the Collegiate Church of St. Stephen, Westminster Palace, and Edward Fynche, M.D., was appointed in his place.

1522.—Letter from Thomas Linacre to Archbishop Warham, excusing himself for not having dedicated to his Grace, according to promise, the last volume of his translation of Galen. He had been commanded by the King, in the presence of Mr. John Chamber, to dedicate it to his Highness. Acknowledges that he was indebted to the liberality of Warham for the opportunity of devoting himself to letters.

1524, Oct. 12.—For Thomas Linacre, M.D., the King's Physician. Licence to found three lectureships in Medicine, viz. two in the University of Oxford, and one at Cambridge, to be called "Lynacre's lectures." Also licence to the Mercer's Company, London, according to the purpose of the said Thomas to acquire possessions to the annual value of £30 from the said Thomas, or other persons, for the maintenance of the lectures.

1524, Oct. 20.—Linacre died, aged sixty-four.

1524, Nov. 13.—Vives to Erasmus: Linacre is dead, to the great grief of all doctors.

1524, Dec. 27.—Erasmus writes from Basle, to Vives: Would feel more bitterly the death of Linacre, if he did not consider from what torments he was withdrawn.

1525, Dec. 8.—Sir Thomas More to Erasmus: Is sorry to hear that he has suffered from the illness that was fatal to Linacre.

1526.—Erasmus to Francis, Physician to Cardinal Wolsey: Sends him a minute account of his complaint. Is afraid it will turn to excoriation of the bladder, a most painful disease, of which Linacre died.

1526.—Erasmus to William Cope, Physician: gives an account of his complaint, and his sufferings from the stone. Could get no sound advice.

1536, July 12.—Erasmus died at Basle.

At the time of Linacre's return to England, the Bishops granted medical licences to monks, and the practice of medicine had sunk to a very low point; but the enlightened policy of Linacre established the science of medicine upon a scientific basis, and the College of Physicians became renowned throughout the world.

The first meetings of the College were held at Linacre's house, No. 5, Knight Rider St.; and at his death he bequeathed the house to the College.

Linacre, according to the authorities, entered the Church before his death. The following are the benefices which he appears to have held:

1509, Oct. 23.—Rectory of Mersham, Kent.

1509, Dec. 14.—Prebend of Eston, Wells.

1510.—Church of Hawkehurst.

1517, Aug. 24.—Prebend of St. Stephen's, Westminster.

1518, March 6.—Church of Hollesworth, Exeter.
1518, Oct. 17.—Prebend of South Newbald, York.
1519, April 9.—Precentor of the same Church.
1520, Dec. 20.—Ordained Priest, being then Rector of Wigan, Lancashire.

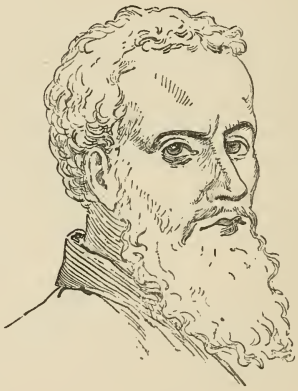
Linacre was buried in old St. Paul's, before the Rood of the North Door, between the Long form and the wall, directly against the said Rood; at least, so says dear old Anthony Wood.

KAYE. JOHN, was born at Norwich, in 1510. He was educated for the medical profession at

Gonville Hall, Cambridge, and graduated at Bologna. On returning to England, he settled in London, and was appointed Physician to the Court, a position he held during three reigns. He was President of the College of Physicians for several years. In 1557 he obtained a royal

licence to convert Gonville Hall into a college, and the name became Caius. He endowed the college liberally, and was the first master. He died in 1573.

Vesalius. Andreas, was the son of an apothecary, and was born at Brussels in 1514.



From a very early age he showed a passion for anatomical studies, and while studying medicine at Louvain and at Paris, ran many serious risks in his endeavours to obtain subjects. For the purposes of further study he accompanied the Imperial army for a time. He taught in the universities of Pavia, Bologna, and Pisa with

much acceptance, and increased his fame by a publication on anatomy in 1542. In 1544 he became First Physician to the Emperor Charles V., and held a similar appointment under Philip II. The performance of his duties hindered scientific study, and in the very height of his prosperity he made a pilgrimage to Jerusalem. His enemies assert this journey was made by order of the Inquisition for opening a human body before death had actually taken place. In 1564 he was at Jerusalem; and, on his return journey, having been invited to fill the chair of anatomy at Padua, he was wrecked, and perished on the island of Zante, October 1564. His most famous work is entitled "De Corporis Humani Fabrica," which opened up a new world to students of medical science.

FALLOPIUS. GABRIELLE, was born near Modena in 1523. When twenty-five years of age he obtained a professorship at Pisa, from whence he proceeded to Padua, where he succeeded Vesalius. He was the first to describe the ethmoid and

sphenoid bones, the structure of the ear (a canal in which is still known as the aqueduct of Fallopius), the muscles of the soft palate, and the villi and valoulæ conniventes of the small intestine. Fallopius gained considerable fame also as a botanist; he was the superintendent of the botanical garden at Padua; and a genus of plants, *Fallopia*, was named after him. He died in 1562.

Gilbert. William, was born at Colchester in 1540. He entered St. John's College, Cambridge, and obtained his M.D. degree in 1569. In 1573 he settled in London, was elected a member of the College of Physicians, and practised with such success that he was appointed Physician to Queen Elizabeth. His spare time was devoted to philosophical experiments, in the pursuit of which he was assisted by the Queen. He was the author of a work "De Magnete," which has ever since served as a basis of investigations on terrestrial magnetism. In this he established the magnetic nature of the earth, which he regarded as one great magnet; and he held that

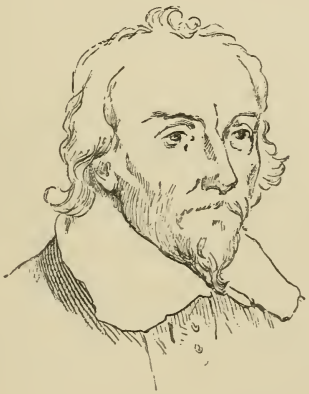
terrestrial magnetism and electricity were two allied emanations of a single force. This view was not demonstrated until two hundred years after his death. He was the first to use the terms "electric force" and "electric attraction." He died in 1603.

Eustachius. Bartolomeo, was born in the early part of the sixteenth century. In 1562 he was Professor of Medicine in a college at Rome. He pursued the study of anatomy with extraordinary success, and made discoveries of the greatest importance. He was the first to make known the existence of the tube in the auditory apparatus, and the valvular structure in the heart, which have been named after him; and the first who accurately described the thoracic duct. He also contributed to the diffusion of accurate facts concerning the development of the teeth, and the structure of the kidney. His anatomical works, published in 1563, were the first to be illustrated with engravings on copper. A very important work which he composed on anatomy was not published

until 1714, owing to his poverty; and the opinion has been expressed that if it had been published in his lifetime, the science of anatomy would have been advanced two centuries. He died in 1574.

HELMONT. JOHN BAPTIST VAN, was born at Brussels in 1577. He had a natural genius for the study of medicine, and made such rapid progress at Louvain that he lectured when seventeen years of age. After completing his studies, he travelled for ten years, and acquired a profound knowledge of chemistry. Throughout the whole of his life he devoted himself to this study, and made many valuable discoveries. The first essay he wrote was upon the Spa waters; and he made himself famous by being the first to adopt the word "gas," referring to spirit. In 1609 he settled at Vilvorden. He was an earnest believer in the system of Galen, and disregarded all other works upon medicine. He died in 1644.

HARVEY. WILLIAM, was born at Folkestone, Kent, in 1578. His father was a yeoman farmer, several of his brothers were merchants in the City of London, and one brother sat for Hythe in Parliament. In early life he attended the Canterbury Grammar School, and afterwards proceeded to Caius College, Cambridge, where he took a degree. From thence he proceeded to



the University of Padua, where he joined the school of medicine, at that time the most famous in the world. His studies were zealously prosecuted for five years; and in 1602 he obtained a diploma as Doctor of Medicine. Returning immediately to England, he obtained a Doctor's

degree at Cambridge, and finally commenced practice in London. In 1609 he was appointed Physician to St. Bartholomew's Hospital; and in 1615 was elected Lumleian Lecturer at the College of Physicians. From his first settlement in London he had devoted his whole leisure to one particular branch of medicine; and in 1616, he first expounded his original and complete conception of the circulation of the blood, with which his name is indissolubly connected. For nine more years he kept on demonstrating the subject in college lectures; and at length, in 1628, he published his discovery to the world. The effect was such as greatly to deter Harvey from making any further discoveries known; and he positively lost several patients by publicly announcing the discovery. But the theory could not be withstood, and he lived to see it adopted by all the medical schools in existence. He was appointed Physician Extraordinary to James I. In 1632, he was chosen Physician to Charles I.; and afterwards travelled abroad with Thomas Howard, Earl of Arundel,

in an Embassy to the Emperor in 1636. He was with Charles I. in his various expeditions, and went with him to Oxford. While there he visited Trinity College, to see George Bathurst, B.D., who had a hen to hatch eggs in his chamber, one of which they opened every day, and Harvey noticed the progress and way of generation; but it was not until 1650 that he consented to the publication of his notes. At Oxford, the honorary degree of Doctor of Physic was conferred upon him; and in 1645, he was elected Warden of Merton College, but this he resigned in 1646, and returned to London. The remainder of his life was spent at the house of one or other of his brothers. He erected a handsome addition to the College of Physicians, and on resigning the Lumleian lectureship in 1656, he endowed the college with an estate at Burmarsh, in Kent. He died in London, June 3, 1657.

Browne. Sir T., was born in London, 1605. He studied at Leyden, and afterwards at Oxford,

and he took the degree of M.D. in both cities. He commenced practice at Norwich in 1636, and remained there nearly half a century. He was knighted by Charles II. in 1671. His principal works were entitled "Religio Medici," and "Inquiries into Vulgar Errors." He died in 1682.

HELMONT. FRANCIS MERCURIUS VAN, was born at Vilvorde in 1618, and practised there as an experimental chemist and physician. Unfortunately for the advance of science he was possessed with a roving disposition, and travelled over a large portion of Europe with a tribe of gipsies. During this period he acquired their tongue, and boasted that he thereby discovered the original language spoken by man. He was a believer in the feasibility of discovering the philosopher's stone, and held the doctrine of the transmigration of souls. He died in 1699.

WILLIS. THOMAS, was born at Great Bedwin, Wiltshire, in 1621. He was educated at Christ Church, Oxford, and took his degree in 1642.

He was an ardent Royalist, and while practising at Oxford obtained, at the Restoration, the Sedleian Professorship of Natural Philosophy. He was the author of a work on the brain, which brought him a great reputation. Soon after settling in London he was appointed Physician to Charles II. He died in 1675.

SYDENHAM. Sir THOMAS, was born at Winford Eagle, Dorsetshire, in 1624. He was educated

at Oxford, and was chosen a Fellow of All Souls' College, 1648. Visiting Montpellier, he prosecuted his medical studies there, and afterwards

graduated M.D. at Cambridge. He then proceeded to London, where he settled in practice. As an original observer he was highly esteemed, and rendered services to medical science of an enduring character. He was daring enough to initiate changes in the treatment of fever and small-pox with considerable success; and he made a study of the relations between the conditions of the atmosphere and epidemic diseases. He died in London, December 29, 1689. The Sydenham Society was named after this physician.

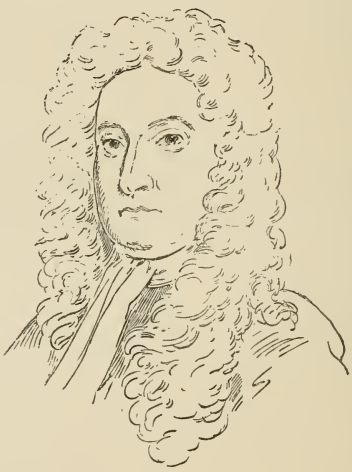
BECHER. JOHANN JOACHIM, was born at Speier, 1625. When young, he had many serious difficulties to encounter in the acquisition of knowledge; but he overcame them all, and acquired a profound knowledge of medicine, physics, and chemistry. His "Physica Subterranea" was the first attempt ever made to bring physics and chemistry into harmony. He devoted much time to the investigation of the theory of combustion. He held that every metal contained an earthy substance which was common to all; that the

combustible principle was the same in all; but that one metal differed from another metal by the possession of a certain mercurial element; and that when a metal was heated the mercurial element was discharged. Becher studied in various parts of the continent, and finally settled in London, where he died in 1682.

Mayow. John, was born in Cornwall, 1645, became a Fellow of All Souls', Oxford, and began practice as a physician at Bath. By a series of careful experiments he demonstrated the fact that air is composed of two portions, one which supported flame and life, and the other, which was the larger portion, light only. The former he called "fire-air," the modern oxygen, and the second is now called nitrogen. Proceeding with his experiments, Mayow determined that "fire-air" was the agent in combustion and respiration. He published his discoveries in 1674; but they did not attract attention, and false theories on combustion and respiration continued to prevail for more than a century afterwards. He died in

1679, in his thirty-fourth year, at an apothecary's house in York Street, Covent Garden, London.

SLOANE. Sir HANS, was born at Killileagh, Ireland, in 1660, and studied medicine in London, where he settled. Sir Hans has the distinction



of having been the first to introduce into practice the use of bark for fever, and other disorders. During an unusually active life he collected a valuable library and museum. Both collections were purchased by the English Government. His books numbered 50,000 volumes, and his manuscripts 3,566; these formed the nucleus of

the present library of the British Museum, and were acquired at a cost of £23,000. George I. created Sloane a baronet, and appointed him Physician-General to the Army. He was Physician in Ordinary to George II., and died 1752.

Stahl. George Ernst, was born at Anspach, 1660. He studied medicine at Jena, and after practising it with much success accepted the Professorship of Medicine, Anatomy, and Chemistry in the University of Halle. He was the first to declare the existence of a vital principle in man, which not only formed the body, but directed it in the exercise of all its functions. He was an able chemist, though he promulgated many absurd theories. The theory of combustion which he made known met with general acceptance until Lavoisier's time. In 1716 he removed to Berlin on his being appointed Physician to the King of Prussia. He died in 1734.

Cheyne. George, was born in Scotland, 1671, and studied under Dr. Pitcairn. His first work

was upon the theory of fevers. In the course of a few years he became enormously fat, and reduced himself to moderate proportions by a diet of milk and vegetables. This change produced such agreeable results that in his discourses and pamphlets he never ceased recommending the diet to all who suffered from corpulency. His most important works are "The English Malady: a Treatise on Nervous Disorders;" "A Treatise on the Gout;" and an essay on "Health and Long Life." He died in 1743.

ARBUTHNOT. JOHN, was born in Scotland, 1675,

and took his degree at Aberdeen. He first settled in London, 1709, and was appointed Physician to

Queen Anne. As a wit he was associated with the most noted literary men of the day, and was on terms of intimate friendship with Pope and Swift. He died in 1735.

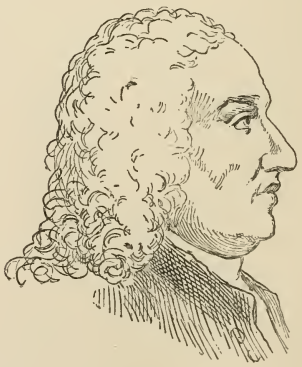
DOUGLAS. JAMES, was born in Scotland, 1675. He studied medicine in London, attended the lectures of John Hunter, and died in 1742. He was the author of many works on medical science.

FREIND. JOHN, was born 1675, at Crofton, Northamptonshire. In 1703 he published a work

upon the diseases of females. He was appointed Chemical Professor at Oxford in 1704; but the next year joined the staff of the Earl of Peter-

borough as physician to the army. Upon his return to England, he obtained the degree of M.D. In 1711, he passed with the Duke of Ormond and his forces into Flanders. He became a Fellow of the College of Physicians in 1716; was elected to Parliament in 1722, and in 1725 was thrown into the Tower for being concerned in Atterbury's plot. While imprisoned, he prepared the plan of his "History of Medicine." At the accession of George II., he was appointed Physician to the Queen, and died in 1728.

MEAD. DR. RICHARD, was born at Stepney,



London, in 1675. He studied at Utrecht, Leyden, and Padua, where he took the degree of

M.D. Upon his return to England, he was appointed Physician to St. Thomas's Hospital. He became Physician to George II., Censor of the College of Physicians, and Vice-president of the Royal Society. When inoculation for small-pox was first seriously debated, he assisted in the experiments made on criminals. In 1723, he republished "Christianismi Restitutio," by Servetus, which was publicly burnt by order of Gibson, Bishop of London.

BOERHAAVE. HERMANN, was born at Voorhout, near Leyden, in 1668. In 1682, he studied at

the University of Leyden, and became very proficient in Greek, Latin, Hebrew, and Chaldee.

In 1689, he was made a Doctor of Philosophy, and in the following year commenced the study of medicine. He obtained a doctor's degree at Harderwyck, 1693. After this he returned to Leyden, where he was appointed Lecturer on the Theory of Medicine, and in 1709 became Professor of Medicine and Botany. He was the author of various chemical hypotheses to account for the diseases of the body, especially with regard to the fluids. In the course of his professorship, Boerhaave rendered important services to botany. To aid in the training of his pupils, he caused a hospital to be opened, where he gave them clinical instructions. In 1718, he was induced to accept the Professorship of Chemistry in addition to his other duties, and in 1724 published an elaborate and exhaustive work on chemical science. His fame spread to the most distant portions of the globe, and patients visited him from far distant countries. He died in 1738, having amassed a fortune.

A WOMAN WHO ADVANCED MEDICINE.

MONTAGU. Lady Mary Wortley, daughter of Evelyn, Duke of Kingston, was born about 1690. In her childhood she received a classical edu-

cation. When eight years of age she was introduced by her father to the famous Kit-cat Club,

and admitted to membership. She eloped with, and was married to Mr. E. Wortley Montagu, a member of the House of Commons. Her beauty and wit attracted universal admiration, and she was on the most friendly terms with Addison and Pope. In 1716 she accompanied her husband, who was appointed Ambassador to Constantinople. Here she studied the social manners and customs of the Turks, and her Letters form one of the most charming works on foreign travel. In a letter from Adrianople, written in 1717, she first made known the principles of inoculation. "The smallpox," she wrote, "so fatal and so general amongst us, is here entirely harmless, by the invention of engrafting, which is the term they give it. Every year thousands undergo the operation. There is no example of any one who has died of it, and you may believe that I am well satisfied of the safety of this experiment, since I intend to try it on my dear little son." On her return to England she had her daughter publicly inoculated. Experiments were then tried upon six condemned crimi-

nals at Newgate, which were followed with entire success. This swept away all doubt as to the efficacy of the practice. Two children of Caroline, Princess of Wales, were inoculated; and fashion spread inoculation throughout the country. But the adoption of the practice was not completely achieved until after a struggle with ignorance and superstition, lasting through a quarter of a century. The medical profession generally poohpoohed inoculation; and the clergy denounced it from their pulpits as the device of the devil. In the course of time it was, however, found that inoculation was only a partial cure for smallpox, and that while it protected those who had been inoculated, it kept alive the natural disease, and increased its spread amongst those not inoculated. The subsequent discovery of Dr. Jenner ultimately displaced inoculation. Lady Montagu died in 1761.

OTHER MEN WHO HAVE ADVANCED MEDICINE.

EARTH. Sir SAMUEL, was a native of Yorkshire, and was educated at Peterhouse, Cambridge, where he took his

degree in 1691. In the next year he was elected a Fellow of the College of Physicians. He soon

rose to the front rank, and enjoyed a large and lucrative practice. On the accession of George I., he was appointed Physician in Ordinary to the King, and Physician General to the Army. He was knighted by George I., and died in 1718.

Haller. Albrecht von, was born at Bern, 1708, and studied in the University of Tübingen, where he was a pupil of Duvernay the anatomist. In 1725 he proceeded to Leyden, and took his degree in 1727. He next proceeded to London, studied at Oxford, and also at Paris, but he was obliged to fly from that city, on account of an opposition created by his pursuit of anatomy. After having spent seven years in studies abroad, he returned to Bern in 1730, and commenced practice. In 1736 he was appointed by George II. Professor of Medicine, Anatomy, Botany, and Surgery in the University of Gottingen. While he held these professorships he published upwards of eighty works on medical subjects. In 1753 he resigned his connection with the univer-

sity and returned to Bern, where he published some of his most important medical works. His name is specially connected with the doctrine of muscular irritability, and his teachings impressed new vigour on physiology, a science of which he has been deservedly called "The Father." In his lifetime he was greatly honoured. He was ennobled by the Emperor of Germany in 1748, and was a member of all the scientific societies in Europe. He died at Bern in 1777.

FOTHERGILL. JOHN, was born at Carr End, Yorkshire, 1712. His family were of the Society of Friends. Having served his time to an apothecary, he proceeded to Edinburgh, where, in 1736, he took his doctor's degree. In the same year he became a pupil at St. Thomas's Hospital, and in 1740 made a tour on the Continent. Upon his return he settled in London, where he achieved a great reputation. In 1748 he published a treatise, entitled "An account of the sore throat attended with ulcers." In 1754 he became a member of the Edinburgh College of

Physicians; and in 1763 was made a Fellow of the Royal Society. For about thirty years he stood at the head of his profession. He died in 1780.

CULLEN. WILLIAM, was born at Lanark in 1712. He was apprenticed to a surgeon and apothecary at Glasgow, and afterwards went several voyages as a surgeon. Having subsequently settled in Glasgow, he was appointed Lecturer in Chemistry at the University. In this office he achieved so great a reputation that he was appointed Medical Professor in the University of Edinburgh. His "Lectures on the Materia Medica" were amongst the best known of his works. He died in 1790.

HUNTER. WILLIAM, was born at Kilbride, Lanarkshire, in 1718. An accidental acquaintance with Dr. Cullen induced him to study medicine, and he studied under Cullen three years. In 1740 he pursued his medical studies in Edinburgh, and removed to London in 1741.

Here he entered the house of Dr. James Douglas, as tutor to his son, and as dissector. In 1746 he commenced a series of lectures on anatomy and surgery to a society of surgeons in Covent Garden. His fame increased rapidly. In 1764 he was appointed Physician Extraordinary to the Queen, and was made Professor of Anatomy by the king, on the formation of the Royal Academy. Dr. Hunter resided in Great Windmill Street in 1770, where he constructed a theatre for lectures, and a museum. The collection he made is now in the University of Glasgow. He wrote several works on medical subjects. He died in 1783.

Mamsey. Dr., was born in Norfolk, and became Physician to Chelsea Hospital. He had a great fear of the public funds, and concealed his money in different parts of his house. Going upon a journey once, in the middle of July, he concealed a large amount, in notes, at the back of the fire-place in his private room, imagining that in such a place they were perfectly secure. He returned at the expiration of a month, and

entered the room at a moment when the housekeeper was entertaining a select circle of friends. There was a fire in the grate, and a small kettle embowered amongst the coals. With an angry shout the doctor seized the kettle and poured the hot water on the fire; the contents of the tea-pot upon the table followed; the guests shrieked, but, paying no heed to them, the doctor rushed downstairs, and, returning with a bucket of water, emptied it impartially over the visitors and the fire. At length the grate was cool enough for examination, and the doctor was pleased at discovering that although the notes were burnt, they were not wholly destroyed. Next day he consulted Lord Godolphin, who promised, on a day named, to go with him to the Bank of England and plead for fresh notes. On the day appointed, the doctor took water at Whitehall, and on his way down the river took the fragments of notes out of his pocket to examine them, when a sudden puff of wind blew them into the river. The watermen hastily "back-watered," and when within reach the

doctor scooped up notes and water in his hat. In this fashion he bore them to the Bank, and throwing his hat upon a table, bade the authorities take up their notes, that neither fire nor water had been able to destroy. He died December 26th, 1788.

BONNET. CHARLES, was born at Geneva, 1720. He was intended for the profession of the law, but forsook that study for natural history. A treatise on aphides, which he published in 1740, caused his election to a corresponding membership of the French Academy of Sciences. He afterwards studied the respiration of insects, the structure of the tape-worm and polypi, and published the results. An attack of inflammation in his eyes put a stop to his researches in natural history, and gave a new direction to his thoughts. He came to the conclusion that the body was the original source of all the inclinations of the soul, and that all ideas were connected with the movements of the nervous fibres. Further than this, he maintained that all living creatures would

in a future state attain the perfection of their faculties. He died in 1793.

AKENSIDE. MARK, born at Newcastle-upon-Tyne in 1721, became distinguished as a physician and a poet. He studied at Edinburgh and at Leyden, and took his degree in 1744. In the same year he published "The Pleasures of Imagination." He also wrote a number of medical works, and died in 1770, aged 49.

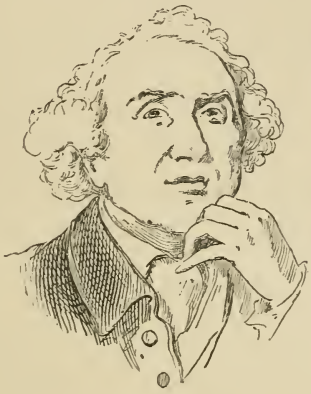
LECLERC. NICHOLAS GABRIEL, was born in Franche Comté, 1726. He was appointed First Physician to the forces of the King in Germany, 1757. He also served with the Duke of Orleans in a similar capacity; and in 1769 went to Russia with the title of First Physician to the Grand Duke, and Director of the Schools of the Imperial Corps of Cadets. In 1777 he returned to France, and soon afterwards published a history of Russia, for which the French Government rewarded him with a patent of nobility and a pension. Several medical works also issued from his pen. At the

Revolution he was deprived of his pension, and died at Versailles, 1798.

Black. Joseph, was born at Bordeaux in 1728. He was sent to Belfast to be educated in 1740, and from thence passed into the University of Glasgow in 1746. Here he studied chemistry under Dr. Cullen, and afterwards completed his medical course in Edinburgh, where he took his degree in 1754. In 1756 Black was appointed Professor of Anatomy at Glasgow University, and afterwards Lecturer on Chemistry. Between 1759 and 1763 he worked out the theory of latent heat, which laid a secure basis for his scientific fame. In 1766 he was appointed to the Chair of Chemistry in Edinburgh, where he wholly occupied himself in elaborating his lectures, and with great success; but he made no further contributions to chemical discovery. He died in 1799.

Hunter. John, was the younger brother of William Hunter, and was born in 1728. He was

first of all apprenticed to a cabinet-maker, but induced his brother to take him as an anatomical assistant, and in a few months was capable of



demonstrating to his brother's pupils. In 1753 he became a gentleman commoner of St. Mary's Hall, Oxford, but in the following year became a surgeon's pupil at St. George's Hospital. His progress was very surprising, but having impaired his health by too close an application to his profession, he became staff-surgeon to the English troops serving at Belleisle and in Portugal in 1760. He resumed his studies with much ardour when he returned to England. In 1768 he was elected one of the surgeons of St. George's

Hospital; and in 1776 he was made Surgeon-Extraordinary to King George III. Not long afterwards he was appointed Surgeon-General and Inspector-General of Hospitals. His celebrity arose from his perfect acquaintance with anatomy, and his fame rests upon his researches concerning comparative anatomy, and the structure of various classes of organised beings. He died suddenly in St. George's Hospital, 16th October, 1793. His anatomical museum was purchased by Government for £15,000, and was transferred to the Royal College of Surgeons.

Spallanzani. Lazaro, was born at Scandiano, Modena, 1729, and at first designing to enter the Church, accepted the Professorship of Logic and Metaphysics at Reggio. He afterwards exchanged this for a Professorship at Modena, where he devoted himself with great success to the study of natural history. By a careful study of the blood he arrived at a series of grand conclusions; he was the first to follow the course of the blood through the intestinal tube, the liver, spleen,

ventricles, and pulmonary organs; and, according to one of his biographers, found out the propulsive power of the heart over the blood in the various vessels; knew that the heart never wholly emptied itself; ascertained some of the causes which retard the circulation, and the obstacles produced by the weight of the blood. In his experiments upon the lower animals Spallanzani demonstrated that snails had the power to regrow their horns, and eyes, and mouth, and tongue, after they had been once cut off; and that a similar power was possessed by salamanders, lizards, and worms. He became Professor of Natural History, and Keeper of the Museum in the University of Pavia in 1768, and greatly enriched the collections. In 1785 he proceeded to Constantinople with the Austrian ambassador, and studied the natural history of Turkey for a whole year. In 1788, after having become weary of his long scientific expeditions, he retired to Pavia, where he died in 1799.

CAVENDISH. HENRY, was born at Nice in 1731. He was the son of Lord Charles Cavendish, and

nephew of the Duke of Devonshire. His education was begun and completed at Cambridge; and he devoted his whole life and a great fortune which was bequeathed to him by his uncle to scientific investigations. His library, which was a very extensive one, was built at a distance from his house, and here he almost led the life of a recluse. The foundations of pneumatic chemistry were laid by him. He discovered the extreme levity of hydrogen gas, which led to projects for aërial navigation; and he also ascertained by personal investigations that water was composed of two gases. The processes which he made use of excited the admiration of Sir Humphrey Davy, for their finished nature, although they were made in the infancy of chemical science. He was never married, and at his death in 1810, he left more than a million of money to his relatives.

Priestley. Joseph, was born at Fieldhead, near Leeds, 1733. In 1755 he became minister to a small congregation at Needham Market, Suffolk, with a salary of £30 per annum. In

1758 he removed to Nantwich, and in 1761 to Warrington, where he married. In 1762 and 1767 he published several scientific treatises, which brought him prominently before the world as a rising scientific man. His position from a pecuniary point of view was much improved in 1773, when he was appointed librarian to Lord Shelburne with a residence and a salary of £250. He discovered oxygen gas in 1774. On giving up this appointment he settled in Birmingham (1780), where he engaged in religious controversies which extended over a great number of years. While here, he incurred the vengeance of a mob, and his house was wrecked (1791), through which he suffered a loss of £2,000. A relative, however, about this time left him a sum of money which placed him beyond the reach of want. He paid a visit to America (1794), where he was received with great respect, and was offered the Professorship of Chemistry at Philadelphia, which, however, he declined. On returning to England he continued his scientific pursuits with great zeal. He died 24th March, 1804.

BERGMAN. TORBERN OLOF, was born at Katharinberg, West Gothland, Sweden, 1735. When seventeen years of age, he proceeded to the University of Upsala, to study for one of the learned professions, but the bent of his own inclination was towards natural history, and he made several discoveries in entomology. In 1767 he was elected to fill the chair of chemistry in the University, and acquired great celebrity as an experimental chemist. A large number of his dissertations were published during his life-time, and afterwards they were collected together in six octavo volumes. He died, Professor of Chemistry at Upsala, in 1784.

SCHEELE. CHARLES WILLIAM, was born at Stralsund, 1742; and was apprenticed to an apothecary at Gothenburg. In 1767 he commenced business as an apothecary at Stockholm, but in 1770 removed to Upsala. While here, he carried on a series of important investigations in chemical analysis, which resulted in a series of brilliant discoveries; these were tartaric acid

(1770), chlorine (1784), baryta, oxygen, and glycerine; but he was not the first to discover oxygen, though his investigations were original. He also discovered the arsenite of copper; and in 1782 he obtained prussic acid, in a separate form. In 1777, at a time when many tempting offers were being made to him to come to England, he removed to Köping to take an apothecary's business, and subsequently died there, of ague fever, in 1786.

LAVOISIER. ANTOINE LAURENT, was born in Paris, 1743. From a very early age he exhibited a predilection for chemical experiments, which led to his making many valuable discoveries. In order to secure for himself the means of more fully prosecuting his experiments, he made the mistake of accepting the office of Farmer-general of taxes in 1769. He was led to connect oxygen gas, then recently discovered, with the phenomena of combustion and of acidity; and, in 1783, he proved that water could be formed by burning oxygen and hydrogen together. He invented a

new chemical nomenclature which was universally adopted; and from this circumstance he has always been regarded as founder of the modern system of chemistry. During the Reign of Terror he was guillotined because of his connection with taxes. He died May 8th, 1794.

Lettsom. John Coakley, was born in 1744, in the island of Little Vandyke, near Tortola, in the West Indies. He was educated in England, and after serving his time to an apothecary, became a pupil at St. Thomas's Hospital. He visited Tortola, where he practised for a short time; but, returning to Europe, took his degree of M.D. at Leyden, after which he settled in London, and was elected a member of the College of Physicians. He acquired considerable fame in the metropolis, and died in 1815.

Rutherford. Daniel, was born at Edinburgh in 1749, and studied in the University. About 1786 he was appointed Professor of Botany in the University, and Keeper of the Botanic

Garden. He was the discoverer of nitrogen, and was the first who taught that oxygen gas

(or "vital air") was the necessary constituent of all acids. He died November 5th, 1819.

JENNER. EDWARD, was born at Berkeley, Gloucestershire, in 1749. He studied under John Hunter, in London, and afterwards settled at Berkeley. While there, he began to study the influence of small-pox upon those who had previously had cow-pox. From 1776 to 1796 he kept up a series of observations with unusual patience, and when at length he announced the discovery he had made, the practice of vaccination was introduced into the London hospitals. Government

ordered the practise to be introduced into the two services—the army and navy; and it rapidly spread throughout the world. On his removal

to London, honours of all kinds were bestowed upon him, and pecuniary rewards to a great amount. Parliament first voted him £10,000, and subsequently £20,000. Learned societies at home and abroad vied with each other for the honour of enrolling him amongst their members. When the allied sovereigns visited England in 1814, the Emperor of Russia offered him a Russian order of nobility. His writings consist of a treatise entitled "Observations on the Variolæ Vaccinæ," which was published in

the Philosophical Transactions, and some papers on natural history. He died in 1823.

BAILLIE. MATTHEW, succeeded Dr. Hunter as Lecturer on Anatomy, in conjunction with Mr. Cruickshank, at St. George's Hospital. He was appointed Physician in Ordinary to George III. and George IV. In his spare moments he wrote a goodly number of medical treatises, and at his death bequeathed to the Royal College of Physicians his museum of anatomical specimens. He died in 1823.

GOOD. JOHN MASON, born 1764, at Epping, Essex, was the son of a dissenting minister. He was apprenticed to a surgeon at Coggeshall, and in 1793 settled in London as a surgeon and apothecary. Having obtained a diploma from Aberdeen, he commenced as a physician in 1820. He was an indefatigable worker in his profession, wrote many valuable treatises, and contributed largely to the periodical literature of his day. He lectured at the Surrey Institution in 1810, and in

the following year his lectures were issued to the public under the title of "The Book of Nature." He also wrote "The Study of Medicine;" and died in 1827.

ABERNETHY. JOHN, was born in 1764. At an early age he went to London, became apprenticed

to Sir Charles Blick, and attended John Hunter's lectures. He subsequently became surgeon to St. Bartholomew's Hospital. Many anecdotes are still current relating to Dr. Abernethy, showing his amazing independence. His great reputation warranted him in saying things to his patients that no other man would have dared.

Amongst the best authenticated stories the following will serve to show his spirit:—

One day a woman called upon him who had an ulcer on her arm. The doctor said, "What is the matter with you?" She held up her arm and pointed in silence to the ulcer. After examining it the doctor said, "Oh! poultice it, and take five grains of blue pill every night, that's all. Come again in a week." The visits were repeated at intervals, the same singular silence on the part of the woman characterizing all her visits. At length, one day, after looking at the arm, Abernethy said, "Well." She at once asked him what his fee was, and he made reply, "Nothing from you. You are the most sensible woman I ever saw—you don't talk."

Upon another occasion a lady consulted him about some nervous disorder from which she suffered, and she so intensified her troubles as to irritate the doctor. Holding his hand out for the fee, she placed a one-pound note and a shilling in his palm, whereupon he returned the shilling, saying, "There, madam, go and buy a skipping-rope; that's all you want."

To another patient, who had made himself ill by gluttony, he made the following quaint speech: "Your stomach being out of order, it is my duty to explain to you how to put it to rights. The kitchen, that is, your stomach, being out of order, the garret" (pointing to his head) "cannot be right; and, egad! every room in the house becomes affected. Repair the injury in the kitchen—remedy the evil there, and all will be right. This you must do by diet. If you put improper food into your stomach, by gad, you play the very devil with it, and with the whole machine besides."

"Pray," was the question of an indolent and luxurious citizen to him, "what is the cure for gout?" "Live upon sixpence a day, and earn it," was the laconic and sage reply.

A lady told him whenever she lifted up her arm it pained her exceedingly. "Why, then, madam," said he brusquely, "what a fool you must be to lift it up."

With another patient, a farmer from the country, suffering, he saw at a glance, from over-

feeding, he held the following colloquy: "Do you make a good breakfast?" "Pretty good." "You lunch?" "Yes, I take luncheon." "Do you eat a hearty dinner?" "Pretty hearty." "You take tea, I suppose?" "Yes, I do." "And to wind up you sup, I suppose?" "Yes, I always sup." "Why then, you beast, go home and eat less, and there will be nothing the matter with you."

His chief work is entitled "The Constitutional Origin and Treatment of Local Diseases." He was passionately devoted to the study of physiology. He died in 1831.

DALTON. JOHN, was born at Eaglesfield, near Cockermouth, Cumberland, in 1766. His early education was received in his native place, and afterwards at a school in Kendal. In 1788 he commenced a journal of meteorological observations, which he kept up to his death. In 1793 he was appointed teacher of mathematics and the physical sciences in New College, Manchester. His chief physical researches were on the con-

stitution of mixed gases, the force of steam, the elasticity of vapours, and the expansion of gases by heat; and in chemistry he greatly developed the atomic theory, and added much to our scientific acquaintance with the nature and characteristics of gases. He was one of the greatest chemists the world has ever known. He was a member of most of the learned societies at home and abroad. Government rewarded him with a pension of £300 a year, and his Manchester friends presented him with £2,000. He died in 1844.

COOPER. Sir ASTLEY PASTON, was born at Brooke, Norfolk, in 1768. In early life he was placed with a medical gentleman at Yarmouth, but was soon removed to London in order that he might walk the hospitals. On first reaching the metropolis he was articled to his uncle, Mr. W. Cooper, surgeon to Guy's Hospital; but a few months afterwards was transferred to Mr. Clive. Under this gentleman his abilities were quickly made manifest. In his twentieth year he

visited Edinburgh, and on his return became assistant to Mr. Clive in his anatomical lectures at St. Thomas's, and became very popular as a lecturer himself. In 1792 he paid a short visit to Paris for the purpose of further study. After his return he settled in London, and for many years was the most fashionable as well as the ablest practitioner living. His fees for years are said to have ranged from £18,000 to £20,000. He was appointed Surgeon to George IV., by whom a baronetcy was conferred upon him. He died February 12th, 1841.

YOUNG. Dr. THOMAS, was born in 1773, at Milverton, Somersetshire. As a youth he exhibited good natural parts, and when only in his nineteenth year went to London to study medicine, where he became a pupil of John Hunter. His studies were afterwards pursued in Edinburgh, and were succeeded by a tour through Germany. On his return in 1797 he entered Emmanuel College, Cambridge. He commenced practising in London as a physician in 1801. In

1802–3 he was Professor of Natural Philosophy at the Royal Institution; and in 1802 was appointed Foreign Secretary to the Royal Society. Subsequently Dr. Young was attached to St. George's Hospital. He was the first to announce the undulatory theory of light, and the principle of interference of rays. His contributions to the learned publications of his day were numerous and varied. He died May 10th, 1829.

Birkbeck. George, was born at Settle, Yorkshire, in 1776. He began his education at Leeds, and afterwards proceeded to Edinburgh, where he made the acquaintance of such men as Brougham and Jeffrey. In 1799 he was appointed to the chair of the Andersonian Institution, Glasgow, and lectured on Natural and Experimental Philosophy. In 1806 he settled in London as a physician, and devoted what leisure he possessed to the spread of education amongst the working classes. He took an active part in founding the London Mechanics' Institution, and died its first president in 1841.

BELL. SIR CHARLES, was born at Edinburgh in 1774, and while a youth assisted his brother John in his anatomical lectures and demonstrations. In 1797 he was admitted a member of the Edinburgh College of Surgeons, and removed to London in 1806. He became a member of the Royal College of Surgeons in 1812, and delivered a course of lectures with great success at the Middlesex Hospital. Twice he gave up his London engagements to acquire a knowledge of gunshot wounds; once in 1809, when he visited the wounded who landed after the battle of Corunna; and afterwards in Brussels, amongst the wounded at the battle of Waterloo. In 1824 he became senior Professor of Anatomy and Surgery to the Royal College of Surgeons; in 1826 he was constituted the head of the medical school at University College; and in 1836 he was appointed Professor of Surgery in the University of Edinburgh. He became celebrated for a work on the nervous system, and wrote several treatises on surgery. He died in 1842.

DAVY. SIR HUMPHREY, was born at Penzance, Cornwall, in 1778. His father was a wood carver, and he was sent to school at Truro, where he remained until fifteen years of age. After leaving school he was apprenticed to a surgeon and apothecary in Penzance. When nineteen he began seriously to study the elements of chemistry. Dr. Beddoes, who had a pneumatic institution at Clifton, engaged him as his assistant; and here he carried out a series of experiments on the respiration of different gases. At twenty-two he was appointed lecturer to the Royal Institution, London, and his lectures soon made him famous. In 1813 he published a series of papers on the elements of agricultural chemistry which marked an era in the progress of agriculture. His lecture "On some Chemical Agencies of Electricity" won for him the prize of the French Institute. Following out the principles he laid down led him to discover that the alkalies and earths are compound substances formed by oxygen uniting with metallic bases. He decomposed potash in 1807; and it is related of him that

when he first saw the globules of the new metal —potassium, his delight disturbed his equanimity greatly. He next decomposed soda, and the alkaline earths baryta, strontia, lime, and magnesia, and discovered the new metals sodium, barium, strontium, calcium, and magnesium. With respect to the earths proper, he proved that they consist of bases united to oxygen. Davy was knighted in 1812. In 1815 he invented the safety lamp, named after him, to prevent explosions in coal mines, for which, after three years, he was created a baronet. He was made a member of all the scientific institutions in the world. He died at Geneva, in 1829.

ABERCROMBIE. JOHN, was born at Aberdeen, November 11th, 1781. He studied in Edinburgh, where he took his degree in 1803, and settled in that city, where he quickly rose to the first rank as a practising and consulting physician. His writings upon purely professional subjects are very voluminous. The most celebrated are "Inquiries Concerning the Intellectual Powers,"

and "Philosophy of the Moral Feelings." In these are contained all the medical facts he collected together during a long and successful career. He died November 14th, 1844.

CLARK. Sir JAMES, was born at Cullen, Banffshire, 1788. He received the rudiments of education at a grammar school in Fordyce, and afterwards proceeded to Aberdeen, where he took his degree. Proceeding to Edinburgh he first commenced the study of medicine there, which he continued afterwards in London. He was a navy surgeon from 1809 to 1815, then took a medical degree at Edinburgh in 1817. After travelling for some time upon the Continent he settled at Rome, where he practised as a physician for eight years. In 1826 he returned to London, and almost immediately obtained a lucrative practice. He was appointed Physician to the Duchess of Kent; and on the accession of Her Majesty, her Physician in Ordinary. He was created a baronet in 1838. Sir James Clark became a high authority on the Sanative Influ-

ence of Climate, and was one of the first in the profession to emphasize the importance of studying the laws of health in order to direct and control action in disease. He died in 1870.

HALL. MARSHALL, was born at Basford, Nottinghamshire, 1790. After having served an apprenticeship to a chemist, he entered the University of Edinburgh for the purpose of studying medicine, where in 1812 he took his degree. He then proceeded to the Continent for further study in the schools of medicine, and returned to Nottingham in 1815. Here he very soon acquired a good practice and an excellent reputation. In 1826 he removed to London, where his success as a physician enabled him to acquire a fortune very quickly. His name is best remembered for his demonstration of the reflex function of the nervous system, and in the study of which he spent a quarter of a century. The treatises he wrote on the nervous system and its diseases greatly extended his fame. His method of restoring suspended respiration still bears his name. He died at Brighton in 1857.

PETTIGREW. THOMAS JOSEPH, was born in London, 28th October, 1791. His father was a surgeon, and the son showed, at a very early age, a fondness for anatomical pursuits. In the school where he was sent to study he soon came to teach. In 1808 he was elected a member of the Medical Society of London, and became Secretary, and afterwards Registrar of that Society. He was chosen surgeon by the Duke of Kent, and was Surgeon and Librarian to the Duke of Sussex. He founded the Philosophical Society, took an active part in establishing Charing Cross Hospital, and was one of the founders of the British Archæological Association. He died at South Kensington, 23rd November, 1865.

FARADAY. MICHAEL, was born at Newington Butts, near London, in 1794. He was the son of a blacksmith, and was in early life apprenticed to a bookseller. All his leisure was devoted to scientific study, and in 1812, at his own request, he became assistant to Davy. His progress was rapid and continuous, and in 1827 he succeeded

Sir Humphrey Davy as Professor of Chemistry in the Royal Institution. Faraday's contributions to chemistry, and practical and physical science, were very numerous. In his great work, "Experi-

mental Researches on Electricity," are contained accounts of all his great discoveries, which may be briefly summarized into thirteen :—1. Induced electricity ; 2. The electrotomic state of matter ; 3. Identity of electricity from different sources ; 4. Equivalents in electro-chemical decomposition ; 5. Electrostatic induction ; 6. Relation of electric and magnetic forces ; 7. The electricity of the Gymnotus ; 8. Hydro-electricity ; 9. Magnetic rotatory polarization ; 10. Diamagnetism and the magnetic condition of all matter ; 11. Polarity of

diamagnetics, and the relation of diamagnetism to crystalline forces; 12. Relation of gravity to electricity; and 13. Atmospheric magnetism. He died in 1867.

Liebig. Baron Justus, von, was born at Darmstadt, 1803. He studied at Bonn, Erlangen, and Paris, where a paper he wrote on Fulminic Acid first brought him into notice. In 1824 he obtained his first appointment as a Professor of Chemistry at Giessen, and he retained that office for nearly twenty-five years, labouring earnestly the whole time, and raising the fame of the little university to a very high point. He effected great improvements in the methods of analysis, and made many discoveries in organic chemistry. Agriculture was also greatly benefited by his labours. He was the first to analyze organic substances in a completely satisfactory manner, and to show that there was no line of separation between organic and inorganic matter. The Duke of Hesse raised Liebig to the rank of a Baron. In 1852 he transferred his services

to the University of Munich, and in 1860 became President of the Munich Academy of Sciences. He was a laborious contributor to scientific publications, and many of his treatises have been translated into all the languages of Europe. He died in 1873.

MEDICINE IN THE FUTURE.

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WHEN man first surveyed man as a work of creation, his feelings must have been akin to those which filled the breast of Columbus when he gazed for the first time upon the shores of the new world. In the latter case, the survey only continued for a few days or weeks; then the work of discovery began. The coast was surveyed, the country was explored, the mountains were mapped, the rivers traced to their sources; and when this was completed, the earth was searched for riches, the fields for produce, the air, the rivers, and the forests for their inhabitants, and the country was unknown no longer. But with regard to man, the survey lasted for centuries, and the work of discovery is incomplete

even now. In the time of King David, when the Bible chronology allows the world to have been nearly three thousand years old, he could say no more of man than this, "I am fearfully and wonderfully made;" and when the world had grown two thousand six hundred years older, her greatest poet could add but little more. "What a piece of work is man!" said Shakespeare, "how noble in reason! how infinite in faculty! in form and moving how express and admirable! in creation how like an angel! in apprehension how like a god! the beauty of the world, the paragon of animals!" How slowly the work of discovery proceeded with man our preceding pages have shown. Two centuries and a half only have elapsed since Harvey discovered the circulation of the blood; and the functions of some of the organs of the body remain undiscovered still. Considering the difficulty of the problem submitted very much has been done; and, with the aid of science, a very short time only may elapse before, like the new world Columbus saw, the complex mechanism of man will be known and mapped.

When, however, we go beyond man, and consider the influences by which he is affected, the sicknesses that wait upon him, the accidents that befall his frame, the diseases that torture him, we have another world opening before us, far exceeding in its bounds that presented by study of the frame of man himself. Here again our pages have related how diseases wasted men for centuries until the cause and the cure were discovered. Plagues which have swept thousands and tens of thousands away were curable, without any scientific method, by cleanliness of person and habitation; others have been equally fatal in their results, the cure of which was contained in herbs found by every roadside. The world was five thousand seven hundred years old before scientific chemistry became established; and it was at so recent a date as 1774 that Priestley, the minister, discovered oxygen gas, the source of life and heat. The age we now live in is one characterized by free inquiry aided by experiment. There is no limit to the search for knowledge, and investigations are aided by in-

struments of sufficient power to chronicle the infinitesimal movements among the molecules of matter, although fifty millions of them would lie side by side in an inch. What the measure of our advance in the future will be it is impossible to foretell, but of this we may be satisfied, that the science of medicine will progress until the nature and cause of every disease is known, and the cures found. Already the recurrence of contagious diseases on a large scale has been prevented. The first beginnings of ordinary complaints are receiving a larger measure of attention than they have ever yet had; and in the immediate future we may confidently expect to hear of the discovery of specifics which will remove from the category of human ills many diseases from which mankind now suffers.

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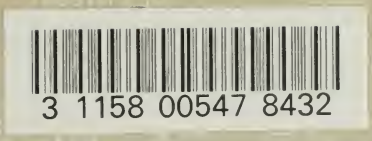
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